With a full warranty and supported by Reprint's global network of distributors and agents, the R29 Spectrum offers unrivalled value, functionality and control within a highly automated, flexible and compact design. With a comprehensive specification and high build quality, the R29 Spectrum is designed to deliver outstanding performance and offers maximum return on investment.

REPRINT

R29 Spectrum

Small Foot Print	1020mm x 1200mm x 1480mm
Maximum Print Area	608mm x 540mm
Minimum Print Area	50mm x 25mm
Maximum Board Size	608mm x 540mm
Maximum Board Thickness	5mm
Minimum Board Thickness	0.33mm
Registration Repeatability	+/- 10 microns
Pneumatic Stencil Clamping	Yes
Stencil Load, Positioning and Ejection	Fully automatic with manual override
Board Clamping	Pull down foil clamps with optional vacuum
Tooling	Manual, vacuum and automatic options available
Operating System	Microsoft Windows XP
User Interface Program	Bespoke REPRINT software
Print Speed	1 - 200mm/sec (1mm/sec increments)
Snap Off Speed	0.1 - 20mm/sec (0.1mm/sec increments)
Printing Pressures	0 - 20kgs (0.1Kg increments)
Stencil Frame Size	736mm x 736mm up to 736mm x 812mm (external)
FMI	Smema as standard (others available on request)
Transfer Height	850mm - 950mm (Smema standard)
Cycle Time	Less than 15 seconds, excluding print stroke
Operational Modes	print/print, flood/print, print/flood; 1 or 2 deposits. Others on request
Air Supply	5 bar clean air
2 Self-Levelling, Independent Squeegees	Yes
Squeegee Type	Metal or Polyurethane
Squeegee Widths	150mm to 620mm
Maximum Underside Component Clearance	Up to 40mm
X/Y Stencil Alignment Range	+/- 10mm
Radial Stencil Alignment	+/- 4 deg
Print Gap	Up to 25mm depending on tooling
Product File Storage	Unlimited. File backup system as standard
Conveyor Type	Single stage, pass through
Board Movement	Left to Right, R to L, R to R, L to L
Conveyor Belts	3mm 'O' section polyurethane
Conveyor Orientation	Front dedicated (rear rail dedication optional)
Power Supply	110 - 250Vac 60/50hz
Power Consumption	500W
Interface Control	Monitor & keyboard

Optional SPC Data logging to capture key production data for production analysis and control

REPRINT

FULLY AUTOMATIC SCREEN PRINTER

R29 SPECTRUM FULLY AUTOMATIC SCREEN PRINTER

The R29 Spectrum fully automatic screen printer from *REPRINT* sets new levels for productivity whilst maintaining an exceptional price-performance target. Aimed at medium to high end users, this totally new design is packed with highly automated and innovative features. The R29 Spectrum is completely flexible, stylish in design and has the smallest footprint of any machine in its class.

Designed for ease-of-use, a Windows XP® based user interface provides intuitive operation of all the machine's functions and features. Combined with a precise servo motion control system and housed in a robust mechanical frame, the R29 Spectrum delivers outstanding printing results, returning high productivity levels and the lowest of ownership costs.

Ease of Operation:

All functions of the R29 Spectrum are easily controlled via the custom written user interface program running on the familiar Windows XP platform. Operators need no special expertise and minimal training. Features of the program include:

- **Fully programmable print parameters including the vertical motion profile for stencil/product separation, critical in fine pitch and hybrid circuit applications**

- **Unlimited product data storage. Machine can be networked to allow off-machine storage of files**

- **Product set-up wizard for fast,reliable product configuration**
- **User password access protection**
- **Extensive built in diagnostics**
- **Comprehensive product and machine statistics**
- **2-D post print paste-on-pad and stencil blockage inspection**
- **Fully programmable stencil cleaning cycles**

In a competitive and challenging manufacturing world, this one machine makes the ideal choice for a host of production environments.

REPRINT

Machine Options:

- Standard wet/dry underscreen cleaning system. Vacuum assist optional
- Standard manual tooling
- Vacuum tooling system. Can be used in conjunction with manual tooling
- Fully automatic tooling management system
- Dedicated tooling designed to customer specification for special applications if requested
- Automatic Paste Dispense System
- 2-D Post Print Inspection System
- SPC Reporting System
- Multi-purpose screen frame adaptor for smaller frames
- Dedicated frame adaptor available on request

Features:

- 735 x 735mm standard frame (29 x 29 inches) up to a maximum 735mm x 812mm
  Universal screen frame adaptor available for smaller frames
- Unique vision alignment system
- Closed loop servo control of all moving platforms
- Automatic stencil loading and positioning. Significantly reduces product set up and change over times
- Vertical motion control for stencil/PCB separation
- Interlocks incorporated for safe operation
- Front dedicated, automated rail width adjustment system.
  Optional rear dedicated configuration available
- Smema interface protocol as standard, other popular interfaces available
- Heavy board handling as standard
- Fully automatic vision system for precise, repeatable printing
- Easy and intuitive user interface software
- Flexible, manual or automatic tooling system

Quality and Absolute Precision:

Exceptional printing quality and repeatability are achieved using a state-of-the-art servo motor control system in tandem with precision mechanical assemblies. The simple-to-use yet highly sophisticated automatic vision alignment system gives the machine its exceptional printing accuracy. The print carriage moves on hard-wearing, high-precision linear bearings. A fixed print head structure with self-levelling squeegee holders provides exceptional printing every time. The product alignment and transfer systems are all mounted on precision mechanical platforms and operate under full software control.

Print quality and productivity is further enhanced with the flexible underscreen cleaning system, which can be programmed separately or in combination with the 2-D post print paste-on-pad and stencil blockage inspection software, linked to the machine's vision system.

Board/Stencil Alignment:

REPRINT has developed a unique, dual camera system that uses a combination of stored and live images to align the board with the stencil. It can recognise standard board features or dedicated fiducials to provide perfect alignment every time.

The system is fast and flexible and features multipoint alignment to compensate for stencil stretch and board manufacturing variations. Alignment calibration and vision system training are fully automatic to minimise operator intervention.

Simple, low cost maintenance:

The R29 Spectrum has been designed for minimal maintenance. The print carriage with its covered ball screw drive system and quality bearings requires virtually no maintenance. Protection is provided to moving parts to minimise contamination from pastes and other material debris.

The on-board computer, electronics and other control systems are easily accessible allowing fast modular replacement. A dedicated maintenance and diagnostic menu is provided within the user program to minimise down time and provide fast fault-finding and testing of all areas of the machine.