

An introduction to the RV

vsmt was formed by the team from Versatronics in the Autumn of 2002.

There is a large RV user base around the world and we felt that continuity of system support was essential. So with the experienced engineers in tow and not a little enthusiasm we started VSMT. To date we have a track record of success in helping our clients install SMT systems that suit their needs not ours. Red Rhino was formed to specifically support users and buyers of these machines over 3 years ago.

A brief time line shows the strength of the Products

1989 RV Placer 1st automated placer with Gerber programming as standard.
Made SMT assembly an affordable process for **all**
Electronics assembly businesses. Circa £10,000.



1993 RV1 More capable, more speed, improved programming interface.
Circa £16,000.

1995 RV1s Fine pitch capability, 0603 placement. Full vision correction. Became the standard for entry level users.
Circa £20,000.



1998 RV4s Yet more speed and now 0402 placement and 20" pitch.
Popular for cellular manufacturing due to low cost and high spec.
Fully equipped with 3 cameras. Used worldwide. Circa £29,000



2003 **QPlacer S+** The performance of the CM1 in the price range of the RV4s.
A high performance system designed for ease of use and speed of set up.

2008 **flexiplace80**. Low cost x/y placement system with easy to use software.
The most effective machine in this price band. From £19,000.

flexiplace210. Extremely flexible placement system with 210 feeder lanes.
Starting at £38,000



2010 **vivo**



Specifications

Specifications shown are applicable to both the RV1s and RV4s except where otherwise indicated.

Machine Accuracy

XY repeatability	+/- 0.001"
XY distance accuracy	+/- 0.002"
XY resolution	0.001"
Rotational accuracy	+/- 0.01 degree
Rotational resolution	0.072 degree

Vision Correction

Method	Automatic CCD, correction Fixed camera On-the-fly camera (RV4s only) Fiducial alignment camera
--------	--



Component Types

0402 - D case, SOIC, SOL, SOJ, PLCC, BGA, TSOP,
QSOP, VSOP, QFP (down to 20 thou / 0.5mm pitch)
244pin max.

Machine Dimensions

Width (excluding feeders)	1,200mm
Width (including feeders)	1,400mm
Depth	680mm
Height	1,280mm

Programming

Method	Off-line, Windows, Graphical interface, With Ident Character recognition
File types	Gerber data 274X and older. Scanned image data
Platform	Windows 98/ME
PC specification	Intel Pentium Processor with 32Mb RAM

Placement Speed

Maximum RV4s (Typical)	3,000 cph (2,000 cph)
Maximum RV1s (Typical)	2,000 cph (1,200 cph)

Power Requirements

Power supply	240VAC, 1,500W
Air supply	Not required

Feeder Details

Active reel feeder
Vibratory feeder (for components supplied in stick format)
Matrix tray (for components supplied in waffle trays)
Passive feeder (for short strips of components)
Maximum = 80 lanes externally plus virtual feeder
locations

These specifications are for information only and Vsmat cannot guarantee that these are achievable on used systems.



phone: 01296 630341 or email: sales@vsmt.co.uk for more information.

RV range Product Summary

“Versatile Electronics Assembly Solutions from a UK Manufacturer”

RV4s Placement system



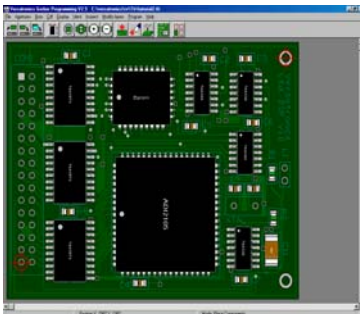
- 3,000 CPH Maximum placement rate (typical 2000CPH)
- Full vision Correction for 0402-0.5mm pitch placement
- 80 feeder lanes
- Suits batch production and Cellular manufacture
- Easy to use Gerber Programming Software
- Typical RV4s installed cost £29,000

RV1s Placement system



- 2,000 CPH Maximum placement rate (typical 1,200 CPH)
- Full vision Correction for 0402-0.5mm pitch placement
- 80 feeder lanes
- Suits prototyping and small batch production
- Easy to use Gerber Programming Software
- Typical RV1s installed cost £24,000

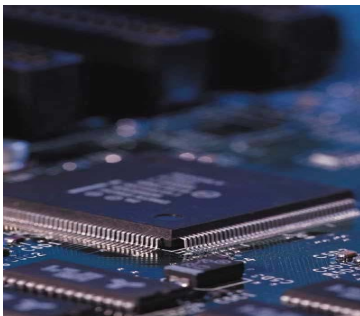
System Software



- Off-line windows based graphical programming software
- Accepts data from Gerber, CAD or scanned image files
- Advanced character recognition for the ident layer
- Placement monitoring and review capability
- Rules based system for handling damaged components

Services

Training: System and software. Tailored for the customer
Consultancy: Board design, factory layout
Support: Telephone, Modem, On-Site engineers
Components: Procurement advice for customers new to SMT



Accessories

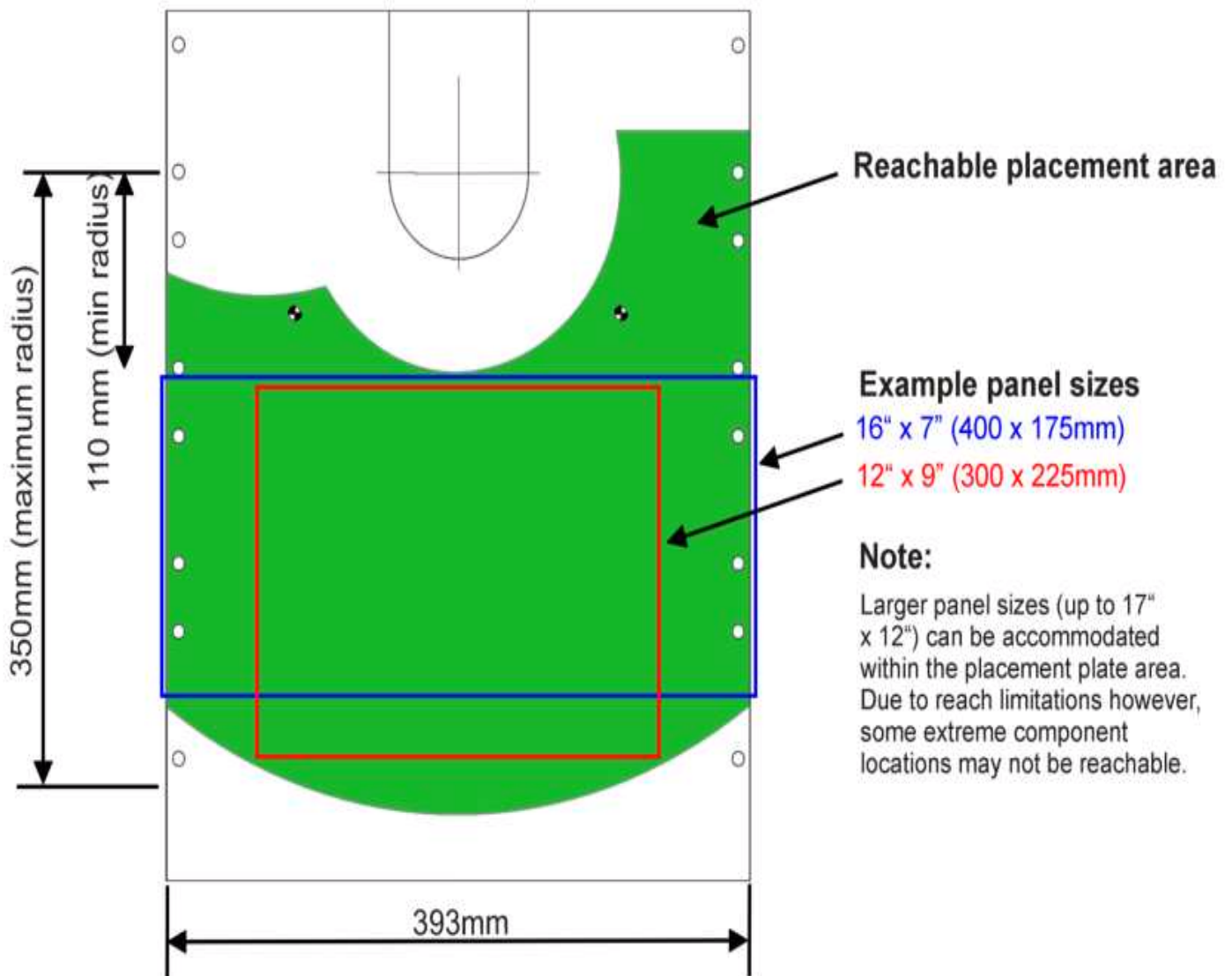
vsmt can advise on and provide the following:

Ovens: Convection Reflow, Infra-Red, Vapour Phase
Printers: Manual, Semi-Automatic, Automatic



phone: 01296 630341 or email: sales@vsmt.co.uk for more information.

Placement Area



March 1998. Specifications subject to change without notice



phone: 01296 630341 or email: sales@vsmt.co.uk for more information.

Price list

The price list below shows the range of equipment available from Vsmt. Please contact us for a detailed technical appraisal of your needs and we will provide you with a suitable solution.

Placement Systems.

<u>Item</u>	<u>Description</u>	<u>List price</u>
VRV1s	2400cph SMT Placement System. Component Correction method - Vision with Fixed Correction Camera. PCB Correction method - Fiducial Camera. Includes; Full system console Offline RV Gerber, RVCAD and RVSCan programming Software. Capability 0402 - 0.5mm Pitch Devices. Magnetic PCB Jigging system. Set of standard Pick up tools	£ 17,495.00
VRV4s	3600cph SMT Placement System. Component Correction method - Vision with 2 camera system . On-the-fly camera and Fixed Correction Camera. PCB Correction method - Fiducial Camera. Includes; Full system console Offline RV Gerber, RVCAD and RVSCan programming Software. Capability 0402 - 0.5mm Pitch Devices. Magnetic PCB Jigging system. Set of standard Pick up tools	£ 25,495.00

All systems can place a wide variety of parts. For Specialist applications please contact us for further details.
For full technical specifications please refer to the data sheet.

Component feeder units

<u>Item</u>	<u>Description</u>	<u>List price</u>
VPD108	Reel feeder; 10 lanes for 8mm tape	£ 1,795.00
VPD712	Reel feeder; 7 lanes for 12mm tape	£ 1,795.00
VPD58312	Reel feeder; 5 lanes for 8mm & 3 lanes for 12mm tape	£ 1,795.00
VPD312316	Reel feeder; 3 lanes for 12mm & 3 lanes for 16mm tape	£ 1,795.00
VPD32428	Reel feeder; 3 lanes for 24mm & 2 lanes for 8mm tape	£ 1,795.00
VRVVIB	Vibratory feeder unit for devices supplied in stick format	£ 2,295.00
VRVPASS	Passive feeder unit for short strips of components	£ 250.00

Support and Service

VRVTRG	Product training cost per day for a up to 2 people	£ 850.00
Vsilver	Service Contract - See data sheet for details	£ 999.00
Vgold	Service Contract - See data sheet for details	£ 1655.00
Vplatinum	Service Contract - See data sheet for details	£ 2795.00
Vcover	12 months extended parts warranty .	£ 399.00



phone: 01296 630341 or email: sales@vsmt.co.uk for more information.

Price list

Tools and consumables

Item	Description		List price
RVT01	Pickup nozzle - Typically for 0603 - 0805 (Chamfered tip)	Set of 3	£ 99.00
RVT02	Pickup nozzle - Typically for 0805 - 1206 (Flat tip)	Set of 3	£ 99.00
RVT03	Pickup nozzle with O ring - Typically for SO devices	Set of 2	£ 90.00
RVT04	Pickup nozzle with O ring - Typically for PLLC, Small QFP	Set of 2	£ 90.00
RVT05	Pickup nozzle with O ring - Typically for QFP, BGA	Set of 2	£ 90.00
RVT01.5	Pickup nozzle - Typically for 0805 - 1206 (Chamfered tip)	Set of 3	£ 80.00
RVTMELF	Pickup nozzle - Typically for 1206 (Countersunk tip for domed parts)	Set of 2	£ 90.00
RVT06	Pickup nozzle - Typically for 0402 (Chamfered tip)	Set of 3	£ 90.00
RVTC	Custom designed Pickup nozzle	Set of 3	£ 150.00
RVJ02	Magnetic Sliding Corner	Set of 2	£ 168.50
RVJ03	Magnetic Edge Support	Set of 2	£ 47.10
RVJ04	Magnetic Support	Set of 4	£ 91.37
RVJ05	Magnetic Fixed Corner	Set of 1	£ 239.10

Consumable items

Item	Description		List price
O3	Nozzle 3 O rings	Set of 5	£ 5.00
O4	Nozzle 4 O rings	Set of 5	£ 5.00
O5	Nozzle 5 O rings	Set of 5	£ 5.00
FTB	Feeder tape retaining band	Set of 10	£ 20.00
FDB	Feeder driveband	Set of 10	£ 20.00

Contact Vsmt for consultancy, training and any SMT requirements.



phone: 01296 630341 or email: sales@vsmt.co.uk for more information.