

# Introducing Konica Minolta's VIVID Line of 3D Scanners

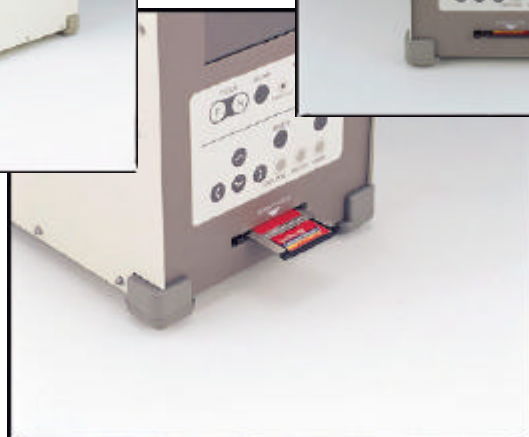


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The versatile Vivid line of 3D scanners is the product of choice for a wide variety of applications. Each model in the line features camera-like ease-of-use, portability, fast scanning time and an unequaled level of price-performance. Konica Minolta's Polygon Editing Tool (PET) software is included with each scanner so you can begin creating useful models as soon as you open the box.

Konica Minolta is the world's largest provider of 3D scanning solutions with customers using our products in a wide variety of industries. The list of applications increases every day.

- Reverse Engineering
- Surface Inspection
- Medical – Hearing Aids, Prosthetic and Orthotic Manufacturing
- Dental – Orthodontic Appliances
- Rapid Prototyping
- Research Applications – FEA Modeling Input.
- Architectural Applications
- Forensic Modeling
- Archaeological / Anthropological
- Entertainment, Object & Character Modeling
- E-Commerce / Web Content
- Sculpture / Jewelry Design & Manufacture



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# VIVID Line – Features and Benefits

Each model in the VIVID line offers outstanding benefits...



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Feature	VIVID 9i	VIVID 910	VIVID 910FW
<b>Portable</b>	Take your measurement system on the road. Weighing in at 31 lbs. The 9i provides a highly accurate mobile measurement system. The SCSI port allows data to be viewed instantly from a laptop computer.	Incorporates viewfinder and Flash RAM data storage. This gives you the freedom to take scan data without having to bring along your workstation.	At 25 lbs. The VIVID 910 FW has a viewfinder and a quick release base unit. Industry standard photographic tripods can support the scanner. The Vivid can be oriented in any position required for optimal scanning.  Both desktop and tripod stands are available as optional accessories.
<b>Fast Scan Time</b>	The 9i allows the user total control of scan time and data quality. Scanning times range from 2.5 seconds to 11 seconds per image.	Offers two scanning modes, enabling it to capture 76,800 data points in 0.5 seconds (Fast Mode) or <b>307,200 points in 2.5 seconds</b> . (High Resolution Mode)	By collecting 75,000 data points in just 0.3 seconds, the VIVID 910 FW scanner is ideal for human subjects, eliminating the blur caused by movement. The class I laser is <b>completely eye-safe!</b>
<b>Easy To Use</b>	The VIVID 9i has been integrated into the most advanced Inspection and Reverse Engineering Software Packages. This allows the user to <b>complete their task in a single application</b> .	The VIVID 910 scanner is the only inspection scanner with the ease of use of a digital camera. <b>No field calibration required.</b>	Aim and shoot. The VIVID 910 FW is factory calibrated to maintain Accuracy. (Just like the more expensive 910.) No field calibration is required for great results.
<b>Versatile</b>	Three interchangeable lenses and photogrametric scan alignment allow the 9i to maintain accuracy on models ranging from teeth to tractors.	Three detachable lenses provide all the flexibility you need to scan entire cars or just the hood ornaments.	With a single lens the 910 FW can capture scan areas from 36X27 up to 910 FW120 cm. The subject can be located from 0.6 to 2.5 meters form the scanner.
<b>Color Texture Maps</b>	Are most accurate scanner also provides the best color data at 640 X 480 pixels per scan.	Color data is collected at 640 X 480 pixels per scan. These images can be combined for Vivid full-color 3D models.	The VIVID 910 FW utilizes a single lens system to capture texture map images with zero parallax. Full color and B/W images are supported.
<b>Utility Software Features</b>	All of the VIVID scanners include Konica Minolta's own polygon editing software suite that allows the user to register (align) and merge multiple scans (both geometry and color data), fill holes, smooth surfaces and export the data to various formats. Installation and training on the software is included with the 9i & 910 packages. <b>Konica Minolta's new Easy Align Tool (EAT) software utilizes color targets to automatically align scan data as it is taken!</b>		

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## VIVID Line – Specifications by Model

VIVID scanners offer the highest performance for their price range...



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Specification	VIVID 9i	VIVID 910	VIVID 910 FW
<b>Range Resolution (Z-Depth)</b>	0.03mm at highest resolution	0.05mm at highest resolution	0.336 mm at highest resolution (600mm to object.)
<b>Resolution (X&amp;Y)</b>	0.145mm at highest resolution	0.175mm at highest resolution	1.12 mm at highest resolution
<b>Data Points per Scan</b>	307,200	307,200	76,000
<b>Scan Time</b>	User Controlled Fast – 0.3 Sec. Precision – 2.5 Sec. D. R. M. – 11 Sec.	Dual Mode: Fast – 0.5 Sec. Precision – 2.5 Sec.	0.3 Seconds
<b>Optics</b>	8mm, 14mm and 25mm lenses included	8mm, 14.5mm and 25.5mm lenses included	8mm Wide-Angle Lens
<b>On-Board Data Storage</b>	Not Available	Up to 1GB using Flash Ram and PCMCIA adapter (Optional)	Not Available
<b>View Finder</b>	5.7" Color LCD Display	5.7" Color LCD Display	5.7" Color LCD Display
<b>Distance to Object</b>	0.5m to 2.5m	0.6m to 2.5m	0.6m to 2.5m
<b>Field of View (FOV per scan)</b>	93mm X 69mm up to 1750mm X 1121mm	111mm X 84mm up to 1300mm X 1100mm	360mm X 270mm up to 900mmX1200m m
<b>Color Resolution (Per Scan)</b>	640 X 480 Pixels	640 X 480 Pixels	640 X 480 Pixels
<b>Safety</b>	Class 1 Laser (FDA) Eye Safe.	Class 1 Laser (FDA) Eye Safe.	Class 1 Laser (FDA) Eye Safe.
<b>Power</b>	100 – 240 VAC 50 – 60 Hz Auto Switching	100 – 240 VAC 50 – 60 Hz Auto Switching	100 – 240 VAC 50 – 60 Hz Auto Switching
<b>Reliability</b>	With over 1500 units in use world-wide, the VIVID line of 3D scanners has been proven the most reliable in the industry. Produced in compliance with ISO 9001 quality standards.		

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## VIVID Line – Standard Accessories

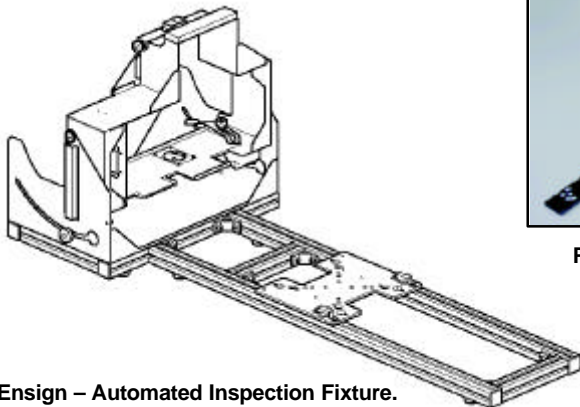
- One-Year Warranty All Models
  - *Protect your investment*
- Interchangeable Lenses (wide angle, mid, telephoto) Vivid 9i & 910
  - *Increased Versatility*
- Instruction Manuals All Models
- 6-Foot SCSI Cable (50 to 50 Pin) All Models
- Konica Minolta's Polygon Editing Tool Utility Software All Models
  - *Capture, Create and Export your Models*
- 6-Foot Power Cord All Models
- White Balance Filter All Models
  - *For Improved Color Fidelity*
- VIVID Tripod w/ Pan/Tilt Head Vivid 9i & 910
- Field Calibration System Vivid 9i
  - *Maintain Highest Accuracy*



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## VIVID Line – Optional Accessories

- Photogrammetric Scan Alignment System (9i Only)
  - *Maintain Accuracy on Large Parts*
- Rotary Stage / Turntable
  - *Automate the scanning process*
- VIVID Tripod w/ Pan/Tilt Head
  - *Flexible and portable*
- Tripod Dolly w/ locking casters
  - *Most useful for large object scanning*
- VIVID Memory Card (910 only)
  - *Take scan data without a PC*
- Travel Case w/ Wheels
  - *Safe transport for mobile users*
- ENSIGN Frame Set
  - *Automated inspection fixture*



Ensign – Automated Inspection Fixture.



Photogrammetric Scan Alignment System

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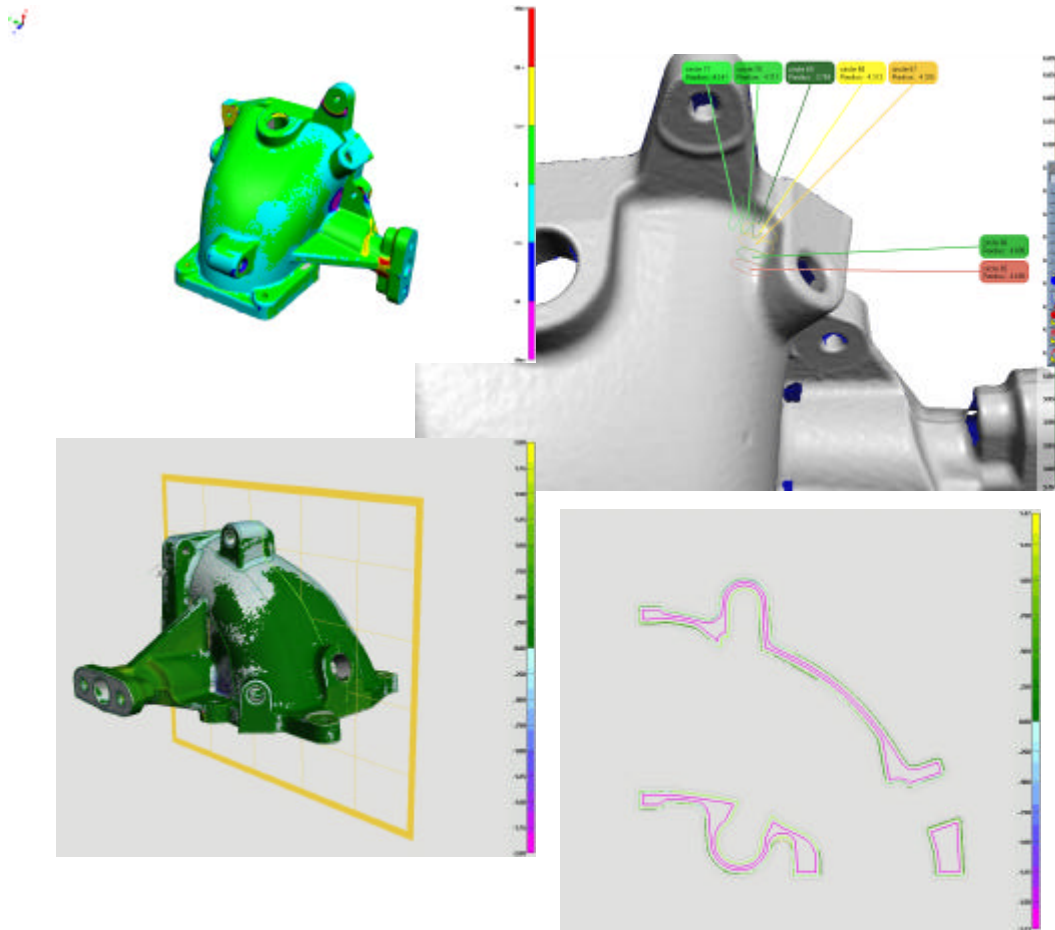
## VIVID Line – The Total Solution

Konica Minolta has cultivated many partnerships in the scanning software industry in order to provide our customers with affordable, high-quality solutions. Many of the most popular applications for inspection, reverse engineering and content development will directly import the native scan file format of the Vivid scanners. Several applications have developed direct interfaces to the scanners, enabling the user to remain in a single application to complete a given task. This type of integration vastly improves the ease-of-use of the system and reduces the learning curve for the novice user.

For applications that will not directly import the VIVID data, the Polygon Editing Tool software will export a number of industry standard formats. These include:

\*.STL, \*.HRC, \*.OBJ, \*.DXF, ASCII, VRML 2.0, MGF

Both geometry data and texture maps can be exported to file formats that support them. IGES surfaces and other CAD data formats can be obtained by utilizing a reverse engineering application.



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**Software such as Innovmetric's Polyworks combine with the VIVID 9i for a powerful inspection solution.**

## VIVID Line – Pricing

The price of a complete Vivid system will depend on the specific accessories and software required for your application. Approximate pricing for several system configurations are shown below. Please contact your Konica Minolta sales representative for a formal quotation.



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<b>System Description</b>	<b>List Price</b>
<b>VIVID 910 FW System – Basic Package</b> <ul style="list-style-type: none"><li>VIVID 910 FW Digitizer</li><li>Konica Minolta’s Polygon Editing Tool Software</li><li>6-Foot SCSI Cable (M 50 to M 50 Pin)</li></ul>	\$23,800
<b>VIVID 910 FW System “Crystal–Faces” Package</b> <ul style="list-style-type: none"><li>VIVID 910 FW Digitizer</li><li>Konica Minolta’s Crystal Studio Software</li><li>Cabling and Tripod w/ Pan Tilt Head</li></ul>	\$29,995
<b>VIVID 910 System – Basic Package</b> <ul style="list-style-type: none"><li>Vivid 910 Digitizer</li></ul>	\$44,000
<b>VIVID 910 System – Reverse Engineering Pkg.</b> <ul style="list-style-type: none"><li>VIVID 910 Digitizer</li><li>Assembled Rotary Stage</li><li>Tripod w/ Pan/Tilt Head and Cabling</li><li>Advanced Polygon Modeling Package*</li><li>Advanced scan to IGES surfaces (NURBS) modeling*</li></ul>	\$65,800
<b>VIVID 9i System – R.E. and Inspection Pkg.</b> <ul style="list-style-type: none"><li>VIVID 9i Digitizer</li><li>Tripod w/ Pan/Tilt Head and Cabling</li><li>Advanced Polygon Modeling Package*</li><li>Advanced scan to IGES surfaces (NURBS) modeling*</li><li>Scan to CAD (or Scan to Poly) Inspection software*</li></ul>	\$75,260
<b>VIVID Photogrammetric Scan Alignment Pkg.</b> <ul style="list-style-type: none"><li>Camera, Scale Bars, Targets and Software</li></ul>	\$27,500

Although the list pricing for the VIVID scanners is the lowest you will find for laser scanners of this quality, if yours’ is a teaching institution, you may be eligible for Konica Minolta’s educational discount. Please ask your Konica Minolta representative for details.

\* Price depends on software package included. Please consult your Konica Minolta representative regarding the software package best suited to your application.

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