VIPER

SI2™ SLA® SYSTEM

Technology:	Stereolithography, SLA
Material Class:	Liquid; Photo Reactive

Two solid imagers in one - for unprecedented versatility

The Viper si2 SLA system is our first solid imaging system to combine standard AND high-resolution part building in the same system. Now, with one machine, you can tackle an unequalled range of solid imaging applications. And you can take advantage of scores of cost-saving, productivity-enhancing innovations, including state-of-the-art components, improved system software, and much more.

A dual resolution and long life laser - another 3D Systems first.

The Viper si2 system lets you choose between standard resolution mode, for the best balance of build speed and part resolution, and high resolution (HR) mode for ultra-detailed small parts and features – all from a carefully integrated digital signal processor (DSP) controlled high speed scanning system with a single, solid-state laser that delivers 100 mW of available power.

Build superior quality parts for every application. The Viper si2 system builds parts with a smooth surface finish, high accuracy and excellent fine feature detail that require minimal finishing. It's ideal for a myriad of solid imaging applications, from rapid modeling and prototyping, to patterns for investment casting.

Lower your cost of ownership thanks to scores of design improvements. Longer laser life is just the beginning. Optimized for our SL materials, the system's new solid-state Viper laser delivers fast draw speeds, and high throughput. What's more, the entire system – from optics and electronics to the external enclosure has been designed from the ground up for maximum productivity, reliability and serviceability.

State-of-the-art software. The Viper si2 system operates with the latest versions of Lightyear™ part preparation and Buildstation™ control software. Lightyear software provides ease of use and the Buildstation software provides a reliable build process with little user intervention.

Tackle all these applications with one machine:

- Small to medium-sized concept and communication models
- Small to medium-sized prototypes
- Patterns for investment casting using the QuickCast buildstyle
- Parts with extremely fine detail

Benefits

- Long laser life
- Low cost of ownership
- Fast scanning system
- Excellent part quality
- Great range of applications

3® SYSTEMS
the solid imaging company℠

Viper si2 SLA System Specifications

Standards and Regulations: This SLA system conforms to Federal Laser Product Performance Standards 21CFR1040.10 Class I laser in normal operation. During field service, emission levels can correspond to Class IV laser product. The Viper si2 system complies with CE requirements.

LASER	
Type	Solid state Nd:YVO_4
Wavelength	354.7 nm
Power at vat	100 mW available
Laser Warranty	7500 hours or 12 months (whichever comes first)
RECOATING SYSTEM	
Process	Zephyr™ recoating system
OPTICAL & SCANNING	
Beam (diameter @ $1/e^2$)	Standard mode 0.250 +/- 0.025 mm (0.010 +/- 0.001 in)
	Hi res mode 0.075 +/- 0.015 mm (0.0030 +/- 0.0005 in)
ELEVATOR	
Vertical resolution	0.0025 mm (0.0001 in)
Position repeatability	0.0076 mm (0.0003 in)
Maximum part weight	9.1 kg (20 lb)
Typical velocity during part building	5 mm/sec (0.2 in/sec)
VAT CAPACITY	
Volume	32.21 L (8.5 U.S. gal)
Maximum build envelope in standard mode	250 x 250 x 250 mm XYZ (10 x 10 x 10 in)
Maximum build envelope in HR mode	125 x 125 x 250 mm XYZ (5 x 5 x 10 in)
Interchangeable vat	Yes
SYSTEM CONTROLLER & SOFTWARE	
Control software	Buildstation 5.3 software
Operating system	Windows NT (4.0 with Service Pack 3 or higher)
Input data file format	.stl .slc
Network type and protocol	Ethernet, IEEE 802.3 10/100 Base-T
POWER	
100 - 120 VAC +/-10% 50/60 Hz, 6 amps	15 amp, 115V
220 - 240 VAC +/-10% 50/60 Hz, 3 amps	8 amp, 230V
UPS power rating	2KVA minimum
AMBIENT TEMPERATURE	
Temperature range	23°C +/- 3°C (73°F +/- 5°F)
Maximum change rate	1°C/hour (3.4°F/hour)
Relative humidity	20 - 50%, non condensing
SIZE	
Crated machine	W168 x D102 x H211 cm (W66 x D40 x H83 in)
Uncrated machine	W134 x D86 x H178 cm (W52.5 x D33.5 x H70 in)
WEIGHT	
Crated machine	564 kg (1242 lb)
Uncrated machine	463 kg (1020 lb)
OPTIONS	
Additional interchangeable vats	
Additional build platforms	
Post Curing Apparatus (PCA™) equipment	
SYSTEM WARRANTY	
One year from installation date.	
Includes parts, labor, and 3D Systems' software upgrades.	

3D SYSTEMS

the solid imaging company SM

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P/N 70433 03/03