

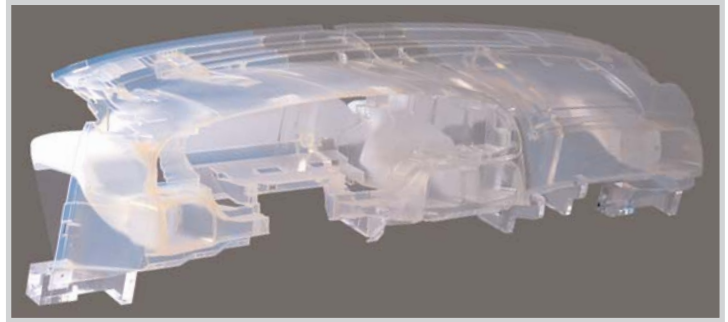


3D SYSTEMS

Viper™ Pro SLA® system



Extraordinary part manufacturing system offers speed, accuracy, surface finish and a maximum part size normally associated with CNC machining.



APPLICATIONS

- Large mockups and models
- Functional prototypes and assemblies
- Investment casting patterns
- Vacuum forming patterns
- End-use parts made without tooling

FEATURES

- Multiple build size configurations
- Adjustable beam size
- Automatic material refill and leveling
- Fast, clean material changeover
- Self-leveling re-coater
- Remote operation and monitoring

BENEFITS

- Minimum part finishing
- Excellent part feature detail and definition
- Outstanding build speed and throughput
- Significantly reduced part cost
- Great materials and applications versatility

Viper™ Pro SLA® system

Four removable build module (RDM) options allow single chamber or dual-chamber simultaneous builds and rapid turnover for higher productivity. Shown is the large size RDM (Resin Delivery Module).



The Manual offload cart (included with the system) eases removal and transfer of build platforms from the Viper Pro SLA system.



The optional Auto Offload Cart offers unattended, automated platform switching to start a second build job without intervention.



TECHNICAL DATA (PRELIMINARY)

Laser

Type	Solid state frequency tripled Nd:YVO ₄
Wavelength	354.7 nm
Power - typical (at head) new	2000 mW
Power (warranty) - at vat @ 5000 hrs.	1000 mW
Laser warranty	5000 hours or 12 months (whichever comes first)

Recoating System

Process	Removable blade Zephyr™ recoating system
Adjustment	Self-leveling; self-correcting
Build layer	Minimum - 0.05 mm (0.002 in); Maximum - 0.15 mm (0.006 in)
QuickCast™ build style	0.1 mm (0.004 in)

Optical & Scanning

Border spot (diameter @1/e ²)	Nominal 0.13 mm (0.005 in)
Specialty spot	Nominal 0.30 mm (0.012 in)
Large hatch spot	Nominal 0.76 mm (0.030 in)
Maximum part drawing speed*	
Border spot	3.5 m/sec (140 ips)
Specialty spot	8 m/sec (320 ips)
Large hatch spot	25 m/sec (1000 ips)

Elevator

Vertical resolution	0.001 mm (0.00004 in)
Maximum part weight	75 kg

Capacity - Resin Delivery Modules (RDMs)

Interchangeable	Quick change RDM; elevator and recoater blade stay with RDM
RDM size options - shown is maximum build volume (WDH); then fill capacity	
Medium size (RDM 650M)	650 x 350 x 300 mm (25.6 x 13.7 x 11.8 in); 148 l (39.1 U.S. gal)
Large size - half-depth (RDM 750H)	650 x 750 x 275 mm (25.6 x 29.5 x 10.8 in); 272 l (71.86 U.S. gal)
Large size (RDM 750F)	650 x 750 x 550 mm (25.6 x 29.5 x 21.65 in); 414 l (109.3 U.S. gal)
Extra large size (RDM 1500XL)	1500 x 750 x 500 mm (59 x 29.5 x 19.7 in); 935 l (247 U.S. gal)

Software

Software	3DView™, 3DManage™, 3DPrint™
Operating system	Windows XP Professional (Service Pack 2)
Input data file format	.stl, .slc
Network type and protocol	Ethernet, IEEE 802.3 using TCP/IP and NFS

Electrical

With single RDM	200 - 240 VAC 50/60 Hz, single-phase, 30 amps
With dual RDM	200 - 240 VAC 50/60 Hz, single-phase, 50 amps

Ambient Temperature

Temperature range	20 - 26 °C (68 - 79 °F)
Maximum change rate	1 °C/hour (1.8 °F/hour)
Relative humidity	10 - 50 % non-condensing

Size - refer to this products' Facility Requirements Guide for complete weights and measures.

Size (WDH)	Uncrated - 211.5 x 157.5 x 220.5 cm (83.3 x 62 x 86.81 in)
Weight	Crated (no RDM module) - 2404 kg (5300 lb)

Options

Additional interchangeable RDMs	Four options (see Capacity section above)
Platform change carts	Manual Cart included; Automatic Offload Cart optional
Additional build platforms	
Post-build UV curing	ProCure™ 750 UV Chamber

Warranty

One year from installation date. Includes parts, labor, and 3D Systems software upgrades.

* Dependent upon part geometry, build parameters and SL material selection.

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.



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