



Laser Cleaning System

Laser Cleaning For Greener, Safer, Smarter Future!

100 to 2000 Systems Watt Available

Allied Scientific Pro (ASP) develops and manufactures a complete line of laser cleaning system store place traditional blast media methods such as sand, glass beads and dry-ice. Offering full control over a wide range of parameters allows for precise cleaning with the ability to retain patinas or keep industrial parts intact. ASP has along legacy of expertise in laser nano and micro machining process. The laser cleaning systems can address the needs of industrial applications. The systems are compact, robust and have a long lifetime with minimal to no maintenance for years.

Fume Extractor Nozzle



Cell Robot



Accessories:

- 3 F-Theta Lenses Included (174mm, 254mm, and 500mm)
- Safety Eyewear Included (2 Pairs)
- Industrial Protective Case

Optional:

- Wi-Fi and GPS Tracking System
- Integrated and Robotic Solution
- Fume Extractor Laser Containment
- Laser Safety Training & Certification
- Laser Safety Signs & Curtains
- Interlocks & Remote Emergency Button



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SYSTEM FEATURES

- ✓ Innovative head design with long optical cable
- ✓ Total control over power levels
- ✓ EasyLaseor Intellisetsoftware option
- ✓ Variable beam angles
- ✓ Long lifetime with minimal to no maintenance cost
- ✓ Remote Software Upgrades through Wi-Fi
- ✓ Hoist rings for lifting
- ✓ Eyebolt for mounting or support

APPLICATIONS

- ✓ Rust & Oxidation Removal
- ✓ Paint & Coating Removal
- ✓ Surface Cleaning
- ✓ Restoration
- ✓ Mold and Soot Cleaning
- ✓ Pre-Welding & Post-Welding surface treatment
- ✓ Nuclear Decontamination
- ✓ Mill scale removal
- ✓ Lead-Paint

100W Laser Cleaning System

Allied Scientific Pro (ASP) has developed and manufactured a laser cleaning system to replace traditional blast media methods such as, sand, glass beads and dry-ice. Offering full control over a wide range of parameters allows for precise cleaning with the ability to retain patinas or keep industrial parts intact. We have a long legacy of expertise in laser nano and micro machining process. The 100W laser cleaning system can address the needs of industrial applications. The system is compact, robust and has a long lifetime with minimal to no maintenance for years.



SYSTEM FEATURES

- ✓ Innovative design with five meter optical cable to clean virtually anywhere
- ✓ Total control over power levels
- ✓ EasyLase or Intellisist software option
- ✓ Variable beam angles
- ✓ Long lifetime with minimal to no maintenance costs

APPLICATIONS

- ✓ Rust & Oxidation Removal
- ✓ Paint & Coating Removal
- ✓ Surface Cleaning & Restoration
- ✓ Mold Cleaning
- ✓ Pre-Welding Preparation

Laser Performance

Laser Engine	100W
Pulse Duration	10, 20, 30, 60, 100, 200, 250, 350ns
Pulse Repetition Rate	1-1000kHz @ ≤60ns 1-400kHz @ ≥100ns
Output Wavelength	1064nm +/- 5nm
Beam Quality	M2 < 1.8
Peak Power	Kilowatt
Cooling System	Air Cooled
Voltage & Power Consumption	1x110-120VAC ±10% 50/60Hz/700Watts
Estimate Lifetime Expectancy	50,000 hours
Fume Extraction System	Clip-on Vacuum to Scanner Head



Environmentally
Friendly



Truly
User-Friendly



Cost-Saving
Operation

Benefits of Laser Cleaning Compared to Alternative Blast Methods



Zero Toxic Waste



Operates at Lower Noise



Completely Dry Process



No Extra Cumbersome
Equipment

Scanner Head

Beam Size	Vertical () or Horizontal (--) (12.7mm-165.1mm)
Beam Shape Configuration	Line (), Square(□), Circle(○)
Robust	Aluminum, two handle bars & protective lens cap
Working Distance	6 to 12 Inches
Cable Length	5m Fibre Optical Cable
Electrical Cable	20ft

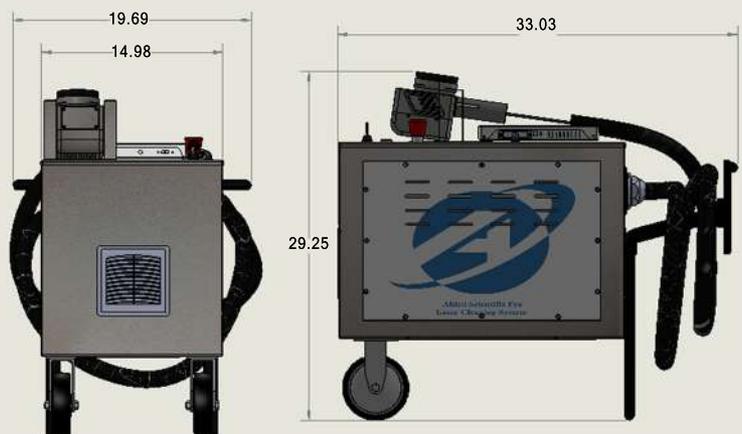
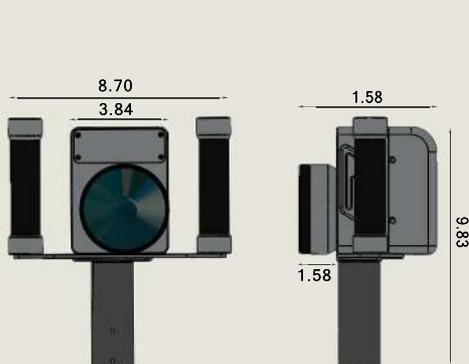
Laser Enclosure

IP Level	IP55, IP65 (Optional)
Handles	Two robust handle bars for easy mobilization
Computer	Robust tablet with EasyLase software included

Dimensions

Weight

53kg (116lbs)

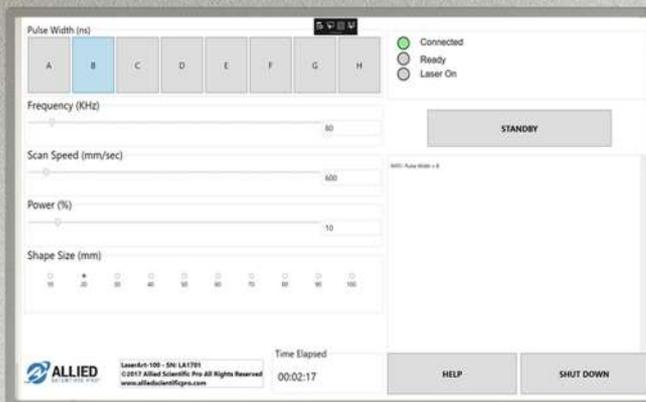


*Dimensions are in Inches

100W Laser Cleaning System

- Accessories:**
- 3 F-Theta Lenses Included (174mm, 254mm, and 600mm)
 - 90° Steering Mirror Included
 - Safety Eyewear Included
 - Harness Strap for Scanner Head
 - Industrial Protective Case
- Optional:**
- GPS Tracking System
 - Robotic Arm
 - Fume Extractor
 - Fume Extractor Laser Containment Nozzle
 - Laser Safety Training & Certification

Two choices of software interfaces:



EasyLase™ Software Interface



Intellisist™ Software Interface
(Advanced User)

- Remote Software Upgrades through Wi-Fi

LaserBlast™ 200 Watt Laser Cleaning System

Laser Cleaning For Greener, Safer, Smarter Future!



Allied Scientific Pro (ASP) develops and manufactures a complete line of laser cleaning systems to replace traditional blast media methods such as, sand, glass beads and dry-ice. Offering full control over a wide range of parameters allows for precise cleaning with the ability to retain patinas or keep industrial parts intact. ASP has a long legacy of expertise in laser nano and micro machining process. The 200W laser cleaning system can address the needs of industrial applications. The system is compact, robust and has a long lifetime with minimal to no maintenance for years.

SYSTEM FEATURES

- ✓ Innovative design with three meter optical cable to clean virtually anywhere
- ✓ Total control over power levels
- ✓ Easylase™ or Intellisets™ software option
- ✓ Variable beam angles
- ✓ Long lifetime with minimal to no maintenance cost
- ✓ Remote Software Upgrades through Wi-Fi
- ✓ Hoist rings for lifting
- ✓ Eyebolt for mounting or support

APPLICATIONS

- ✓ Rust & Oxidation Removal
- ✓ Paint & Coating Removal
- ✓ Surface Cleaning
- ✓ Restoration
- ✓ Mold and Soot Cleaning
- ✓ Pre-Welding & Post-Welding surface treatment
- ✓ Nuclear Decontamination
- ✓ Mill scale removal
- ✓ Lead-Paint



Environment Friendly



Truly User-Friendly



Cost-Saving Operation

Benefits of Laser Cleaning Compared to Alternative Blast Methods



Zero Toxic Waste



Operates at Lower Noise

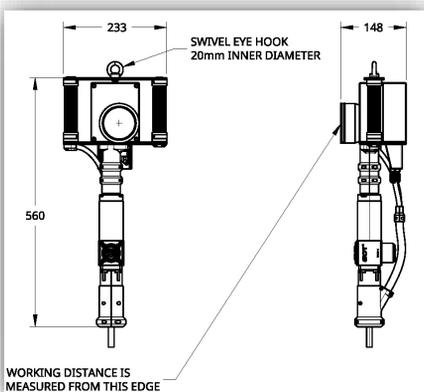


Completely Dry Process



No Extra Cumbersome Equipment

Dimensions



Laser Performance



Laser Engine	200W
Pulse Duration	10 - 2020ns
Estimate Lifetime Expectancy	80,000 hours
Repetition Rate	1 to 4160 KHz
Peak Power	Kilowatt
Cooling System	Air Cooled
Voltage & Power Consumption	1x110-120VAC ±10% 50/60Hz/900Watts
Fume Extraction System	Clip-on Vacuum to Scanner Head

Scanner Head

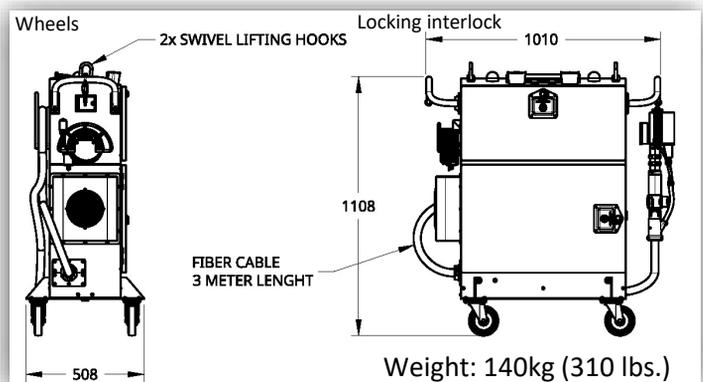


Beam Size	Vertical () or Horizontal (--) (10mm-100 mm)
Beam Shape Configuration	Line (), Square(□), Circle(O) optional
Robust	Aluminum & Carbon Fiber, two handle bars & protective lens cap
Working Distance	6 to 19.7 inches
Cable Length	3m Fibre Optical Cable
Electrical Cable	20ft

Laser Enclosure



Enclosure	Robust stainless steel construction
IP Level (Design Only)	IP55, IP65, IP66 (Optional)
Handles	Two robust handle bars for easy mobilization
Computer	Robust tablet with Easylase [™] software included





LaserBlast™ 200 Watt Laser Cleaning System

Accessories:

- 3 F-Theta Lenses Included (174mm, 254mm, and 500mm)
- Safety Eyewear Included (2 Pairs)
- Industrial Protective Case

Optional:

- Wi-Fi and GPS Tracking System
- Integrated and Robotic Solution
- Fume Extractor Laser Containment
- Laser Safety Training & Certification
- Laser Safety Signs & Curtains
- Interlocks & Remote Emergency Button

Fume Extractor Nozzle



Cell Robot



Two choices of software interfaces:



Easylase™ Software Interface



Intellisets™ Software Interface (Advanced User)



LaserBlast™ 200 – Watt RAD Laser Cleaning System

Laser Cleaning For Greener, Safer, Smarter Future!



Allied Scientific Pro (ASP) designs and manufactures laser cleaning systems for nuclear decontamination. Its systems are proven to significantly reduce surface contamination levels and ASP has supplied many systems to this industry. ASP's proprietary laser parameters are adjusted for radiation removal for most isotopes including Co-60, Cs-137, Cs-134, Zn-65 and others and for most surfaces (compatible with iron, steel, aluminum, Inconel, SUS304, SUS304, concrete and other materials).

When used with proper HEPA vacuum or ventilation systems, ASP's laser technology is safe to use and reduces overall secondary waste by up to 95% when compared with other cleaning methods such as media-blast, wiping and steam cleaning. The laser is also capable of reaching surfaces that would otherwise be difficult if not impossible to meaningfully decontaminate like deep cracks or crevices when using other cleaning methods.

ASP supports its customers with safety and operation training, S/W upgrades, automation and custom engineered solutions. ASP laser systems are available in various power levels from 100W to 2000W.

SYSTEM FEATURES

- ✓ Innovative design with three meter optical cable
- ✓ Total control over power levels
- ✓ EasyLase™ or Intelliset™ software option
- ✓ Variable beam angles
- ✓ Long lifetime with minimal to no maintenance cost
- ✓ Remote Software Upgrades
- ✓ Hoist rings for lifting
- ✓ Eyebolt for mounting or support scanner head

APPLICATIONS

- ✓ Nuclear Decontamination
- ✓ Rust & Oxidation Removal
- ✓ Paint & Coating Removal
- ✓ Surface Cleaning
- ✓ Restoration
- ✓ Mold and Soot Cleaning
- ✓ Pre-Welding & Post-Welding surface treatment
- ✓ Mill scale removal
- ✓ Lead-Paint removal





Environment Friendly



Truly User-Friendly



Cost-Saving Operation

Benefits of Laser Cleaning Compared to Alternative Blast Methods



Minimum Toxic Waste



Operates at Lower Noise

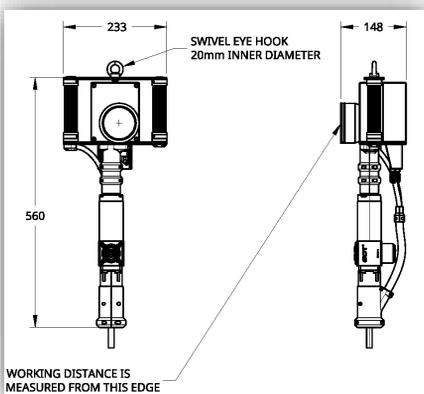


Completely Dry Process



No Extra Cumbersome Equipment

Dimensions



Laser Performance



Laser Engine	200W
Pulse Duration	10 - 2020ns
Radiance	5-161 MW / CM ²
Pulse Energy	1.55mJ / 5.12mJ
Cooling	Air-Cooled
Estimate Lifetime Expectancy	80,000 hours
Repetition Rate	1 to 4160 KHz
Peak Power	Kilowatt
Voltage & Power Consumption	1x110-120VAC ±10% 50/60Hz/900Watts
Fume Extraction System	Clip-on Vacuum to Scanner Head

Scanner Head

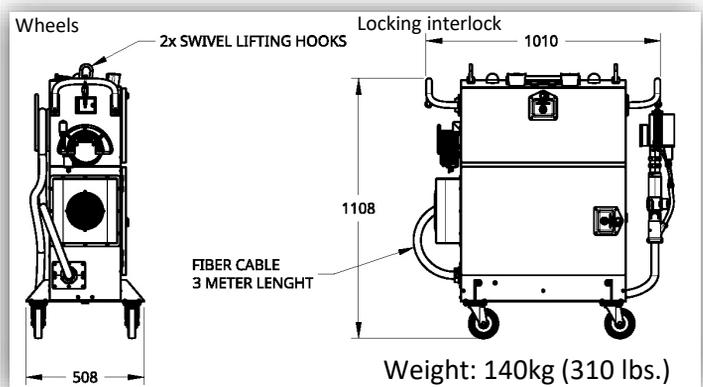


Universal Design	Ergonomic, Robotics, Comportability, Interchangeable Lenses
Beam Size	Vertical () or Horizontal (--) (10mm-100 mm)
Beam Shape Configuration	Line (), Square(□), Circle(O) optional
Robust	Aluminum & Carbon Fiber, two handle bars & protective lens cap
Working Distance	6 to 19.7 inches (187-500mm)
Cable Length	3m Fibre Optical Cable
Electrical Cable	20ft (6m)

Laser Enclosure



Enclosure	Robust stainless steel construction
IP Level (Design Only)	IP55, IP65, IP66 (Optional)
Handles	Two robust handle bars for easy mobilization
Computer	Robust tablet with Easylase [®] software included





LaserBlast™ 200 – Watt RAD Laser Cleaning System

Accessories:

- 3 F-Theta Lenses Included (163mm, 254mm, and 500mm)
- Industrial Protective Case
- Certified Laser Safety Glasses (OD7+)

Optional:

- Integrated and Robotic Solution
- Fume Extractor Nozzle
- Laser Safety Training & Certification
- Laser Safety Signs & Curtains
- Interlock Interface with 5 Connections, 3 Doors, Emergency Button Block, Class 4 Laser On, Signage



Building Restoration



Paint and Rust Removal



Nuclear Decontamination

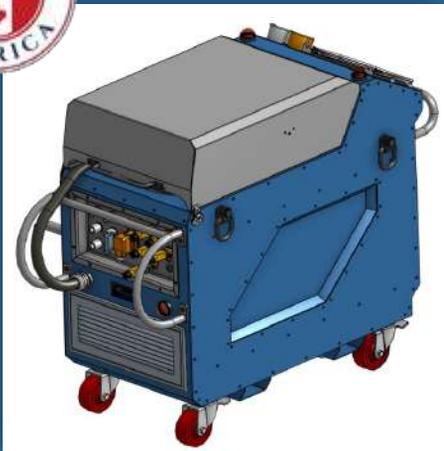
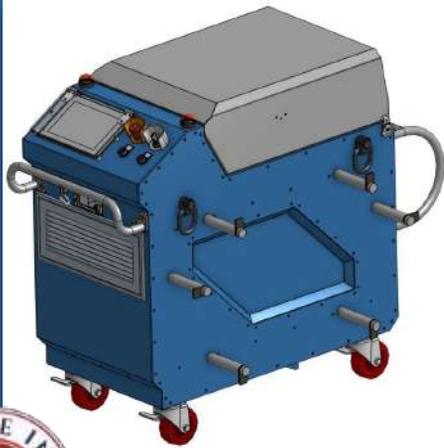


Manufacturing



LaserBlast™ 500 Watt Laser Cleaning System

Laser Cleaning For Greener, Safer, Smarter Future!



Allied Scientific Pro (ASP) develops and manufactures a complete line of laser cleaning systems to replace traditional blast media methods such as, sand, glass beads and dry-ice. Offering full control over a wide range of parameters allows for precise cleaning with the ability to retain patinas or keep industrial parts intact. ASP has a long legacy of expertise in laser nano and micro machining process. The 500W laser cleaning system can address the needs of industrial applications. The system is compact, robust and has a long lifetime with minimal to no maintenance for years.

SYSTEM FEATURES

APPLICATIONS

- ✓ Innovative design with up to 10 meter optical cable to clean virtually anywhere
- ✓ Total control over power levels
- ✓ EasyLase[®] or Intellis[®] software option
- ✓ Variable beam angles
- ✓ Long lifetime with minimal to no maintenance cost
- ✓ Eyebolt on laser head for mounting or support

- ✓ Rust & Oxidation Removal
- ✓ Paint & Coating Removal
- ✓ Surface Cleaning
- ✓ Restoration
- ✓ Mold and Soot Cleaning
- ✓ Pre-Welding & Post-Welding surface treatment
- ✓ Nuclear Decontamination
- ✓ Mill scale removal
- ✓ Lead-Paint



Environment Friendly



User-Friendly



Cost-Saving Operation

Benefits of Laser Cleaning Compared to Alternative Blast Methods



Minimal Toxic Waste



Operates at Lower Noise



Completely Dry Process



No Cumbersome Equipment

Dimensions

Laser Performance



Laser Engine	500W
Pulse Duration	36 - 44ns
Estimate Lifetime Expectancy	Laser 100k, Galvo ???
Repetition Rate	2 to 50 KHz
Peak Power	Megawatt
Cooling	Water Cooled
Voltage & Power Consumption	Voltage: 230V Single phase Frequency: 50-60 Hz Current: 35 A absolute maximum.
Fume Extraction System	Clip-on Vacuum to Scanner Head

Scanner Head

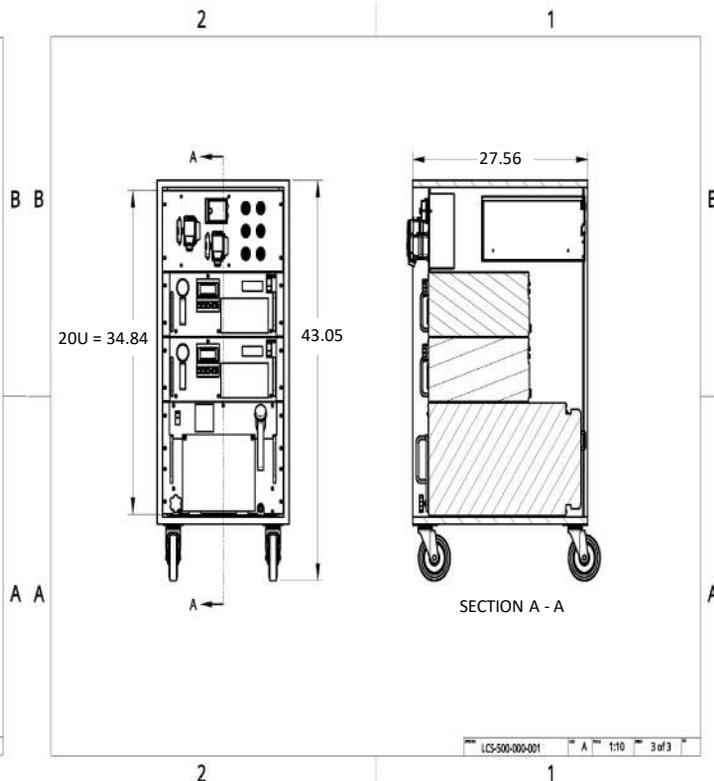
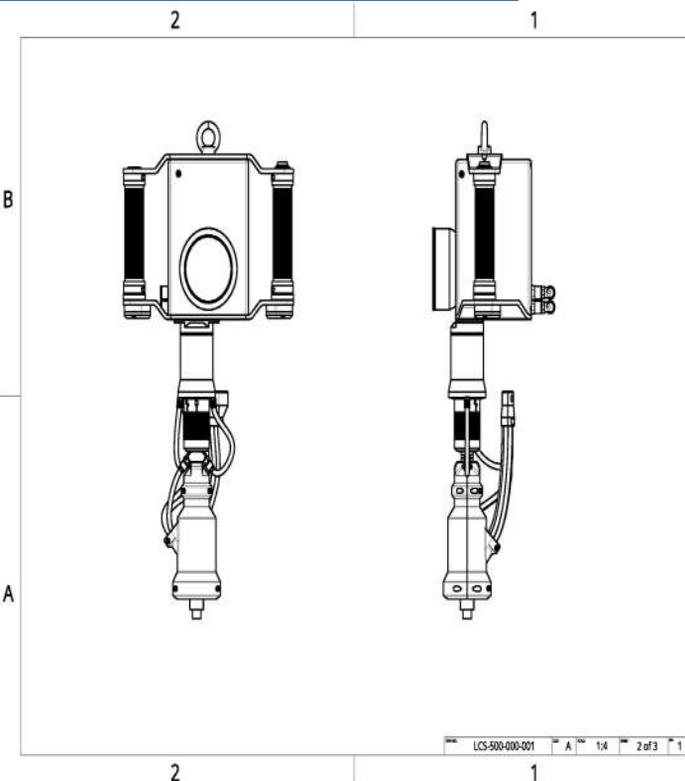


Beam Size	Vertical () or Horizontal (--) (10mm-100 mm)
Beam Shape Configuration	Line (), Square(□), Circle(O) optional
Robust	Aluminum & Carbon Fiber, two handle bars & protective lens cap
Working Distance	6 to 19.7 inches
Cable Length	10m Fibre Optical Cable
Electrical Cable	20ft

Laser Enclosure



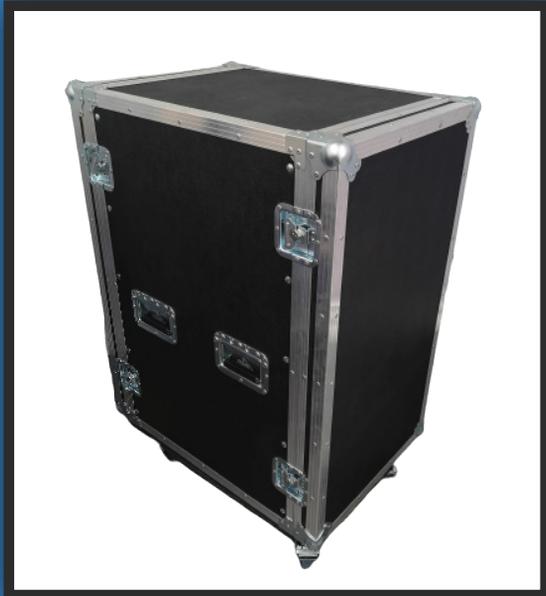
Enclosure	Robust steel construction
IP Level (Design Only)	IP53
Handles	Robust handle bars for easy mobilization
Computer	Robust tablet with Easylase [®] software included



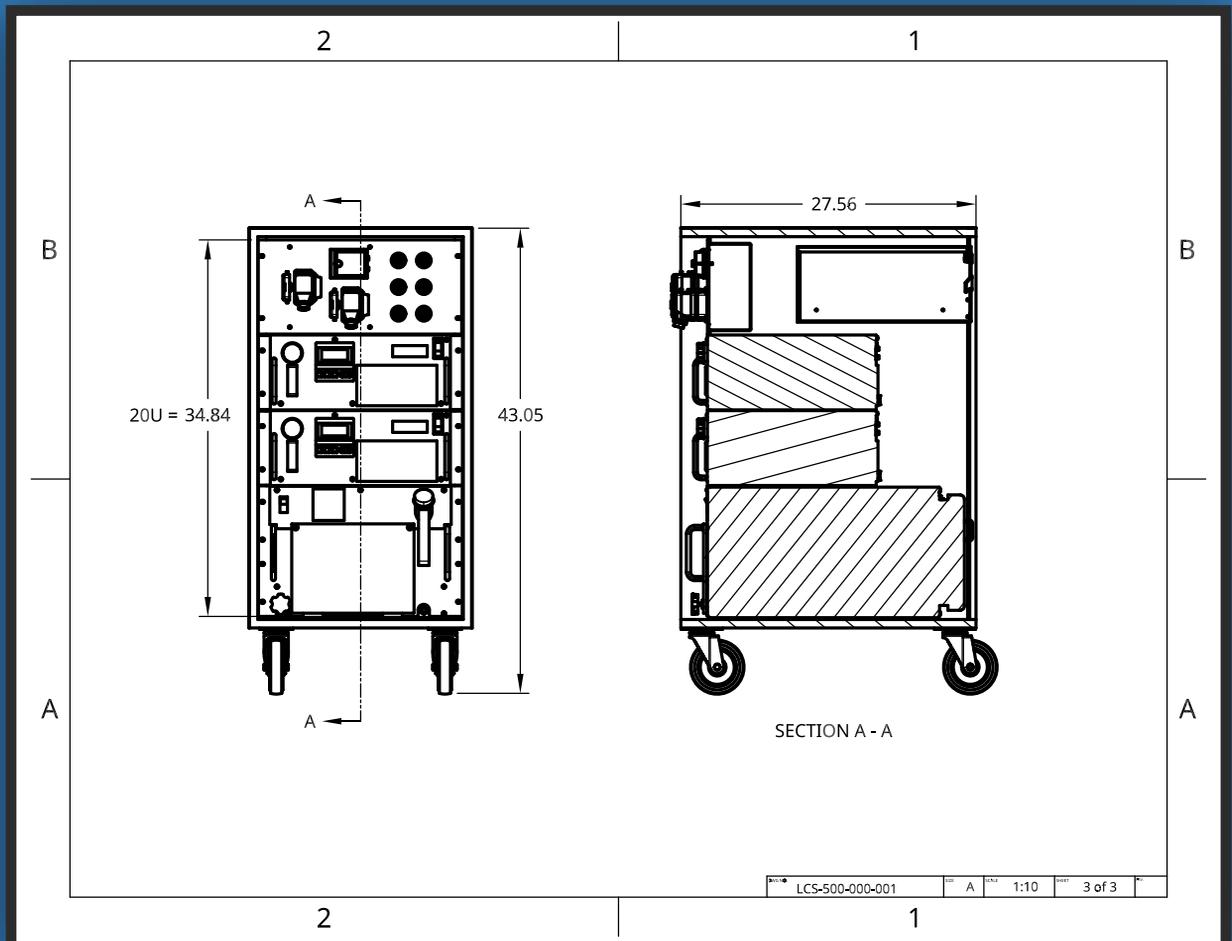


LaserBlast™ 500 Watt Laser Cleaning System

Laser Cleaning For Greener, Safer, Smarter Future!



Chiller Cart Dimensions





LaserBlastTM 500 Watt Laser Cleaning System

Accessories:

- 3 F-Theta Lenses Included (174mm, 254mm, and 500mm)
- Safety Eyewear Included (2 Pairs)
- Industrial Protective Case

Optional:

- Wi-Fi and GPS Tracking System
- Integrated and Robotic Solution
- Fume Extractor Laser Containment
- Laser Safety Training & Certification
- Laser Safety Signs & Curtains
- Interlocks & Remote Emergency Button



Building Restoration



Paint and Rust Removal



Nuclear Decontamination

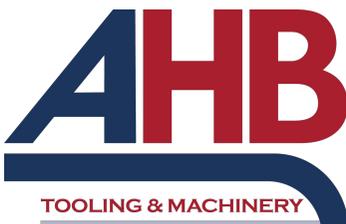


Manufacturing



Allied Scientific Pro provides the market with custom-built laser cleaning systems made in America.

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