



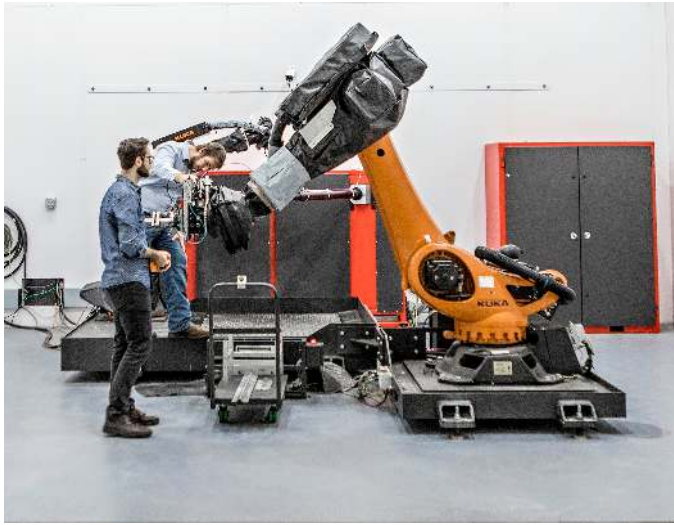
## Laser Peening Solutions for the Aerospace Industry

The Procudo® 200 Laser Peening System is a best-in-class solution for combatting the fatigue challenges faced by the aerospace industry. It combines the industry's highest average power laser peening system with robotic manipulation, overlay management, safety enclosure, and process control to provide a turn-key solution that can be easily customized for any application.



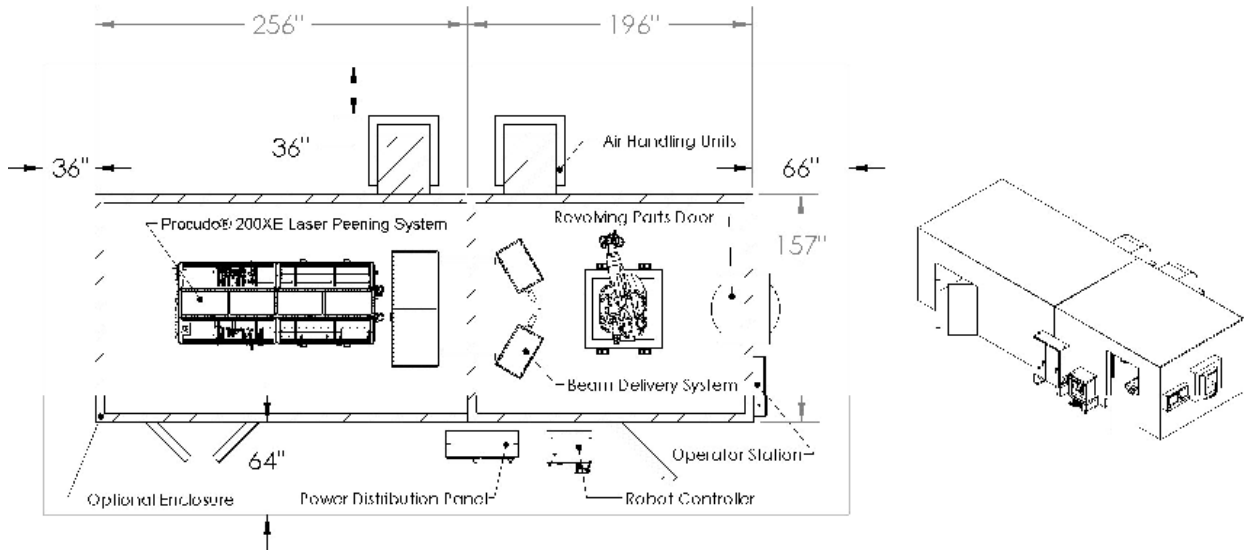
### Standard Features

- Procudo® 200XE Laser Peening System
  - 200W average power
  - Up to 10J, 20ns per pulse
  - Up to 20 Hz operation
  - Sealed enclosure with environmental management
- Two-beam delivery system
  - Allows simultaneous processing on both sides of thin airfoils to minimize distortion
  - Automatically selectable output to allow single-sided processing in the same cell
  - Integrated debris management
  - Automatic energy, spot size, and location calibration
- Robotic part manipulation
  - Kuka KR180 R2900 industrial robot (other capacities available)
  - Integrated smart tool changer
- Safety enclosure
  - Contains sound and laser energy to maintain a Laser Class I environment
  - Single interlocked maintenance door
  - Electrical, water, and compressed air distribution with isolating disconnects
  - Integrated environmental management
- Overlay water system
  - Water-supply conditioning system
  - Selectable overlay-water nozzles with adjustable flow rate to support single and dual-sided processing
  - Integrated wastewater collection, filtration, and discharge
- Control system
  - Automated process control and monitoring
  - Data recording including key operating parameters
  - Remote service integration



## Optional Features

- Customized tooling for specific applications
- Robotic overlay-water delivery
- Compressed air supply system
- Chilled water supply system
- Variable pulse width
- Integrated tool racks for multiple part types
- Advanced remote monitoring
- Automated part handling
- Revolving parts door
- Integration with factory part handling



Typical System Layout for Small Turbine Blades

## Basic Utility Requirements

Utility	Parameter	Specification	Notes
Electrical <sup>1</sup>	Voltage	208–480 VAC 3Φ 50/60Hz <sup>2</sup>	1) 5 Conductor up to 4/0 AWG (107.2 mm <sup>2</sup> )
	Current	≤ 225A <sup>3</sup>	
Compressed Air <sup>4</sup>	Pressure	110-145 psig (758-827 kpag)	2) +10% / -7.5% VAC 3) Dependent on supply voltage and integrated utility options
	Flow	100 scfm (161 Nm <sup>3</sup> /hr)	
	Dewpoint	≤ -70°C	
Process Water <sup>5</sup>	Pressure	45 PSI (310 kPa)	4) 1" ISO-B Quick Connection 5) 3/8" ISO-B Quick Connection
	Flow	1.3 Gpm (4.9 lpm)	

Contact sales representative for more details