

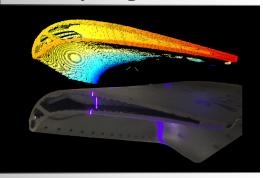




Precision Welding Technology for Reliable Results



Fully Integrated Cell



Intuitive Technology



**User-Friendly** 



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# Single-Source Design and Services

### The Forerunner in Factory Automation & Welding Technology

As pioneers of turbine welding repair using factory automation, we bring our 30 years of engineering and innovation to provide advanced welding solutions for the most challenging turbine repairs. The industry need for automated turbine repair was identified by Liburdi in the 1980s – as early as the commercial success of the personal computer. Our expertise in material sciences combined with pre-existing history in welding technology and repairs lead to the Liburdi Automated Welding System – it revolutionized how industries repair turbine components! Reliable, versatile and intuitive - qualities backed by the +40 million parts successfully repaired by LAWS.

# Advancing the Possibilities with New Innovations & Solutions

Today, we continue to innovate; driven by the needs of our customers. The LAWS 1000 is designed to have versatile capabilities, and to provide solutions for custom repairs to additive manufacturing. With its intuitive features, the it can excel productivity, build unique parts, analyze quality and much more.

#### User-Friendly & Adaptable for Improved Repeatability

From part tracking to weld monitoring, the LAWS1000 is designed to be intelligible and intuitive, with the capability of adapting to part variances. The Liburdi Robotic Controller provides real-time data logging and graphical display of all welding parameters, as well as operator feedback and guidance, customized to your application. The robust design of dual-driven gantry axes with absolute encoders ensure the finest motion accuracy and repeatability. The operator may view the welding process live via the HD weld monitoring system; a feature that can also be used to record the welding process for logging and training references. Contact us to learn more about the LAWS1000's standard and advanced features that will benefit your welding application.

Envelope Dimensions*	
Gantry	Positioner
36" (91cm)	
24" (61cm)	
18" (46cm)	
340°	
	∞°
	120°
	Gantry 36" (91cm) 24" (61cm) 18" (46cm)

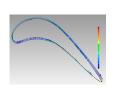
\* The dimensions provided are nominal for the LAWS 1000 standard product. This data is for reference only, and may change based on the equipment selected and application requirements.

#### Services to Ensure Your Success

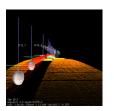
Bridging from our expertise in material science and engineering, Liburdi offers the services needed to ensure successful procedure qualification and production. We offer:

- · Development of welding procedures
- Integration of NDT examination
- · Metallurgical examination and mechanical testing
- Operator & maintenance training (basic & advanced)

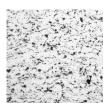












## Over 40 Million Parts Successfully Repaired by LAWS!

Our successful repairs include:

SilverCrest LEAP GE90 GenX CF6 HPT Stg 1&2 CF6 Stg 1- HPC (All Variations) CFM-56 HPT Stg 1 CFM-56 HPC Stg 1-14 CFM-56 LPT
PW4000 HPT & LPT SX CMSX
PW4000 Shroud Segment
PW4000 HPT Stg 1 & 2 root throttle plate
PW2000 LPT, GP7000 LPT
PW2000 HPC Titanium Stg 10
PW PTG IBR Blisk
V2500 HPC & HPT (All Stages)

Rolls Royce Trent 1000 Gear Box Rolls Royce Trent 500, 700, 800 HPC (All Stages & Models) GE T64 Stage 1 NGV GE Shaft Seals T700 & T800 Rolls Royce – BR 710/715, Combustor, Vanes, Seals GE 90 (All Stages)