

MEET THE TEAM



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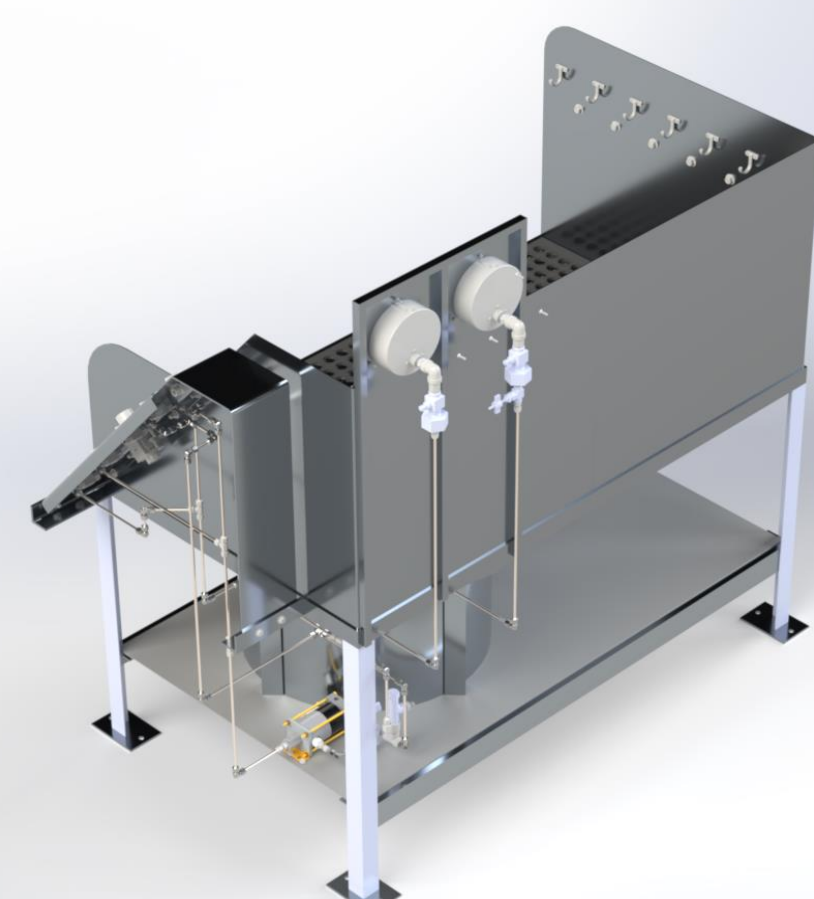


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MEET THE SPONSOR

Solar Turbines is a global leader in providing energy solutions that help businesses, governments and public institutions find the perfect balance between affordable, available, and reduced carbon energy.

FULL BENCH MODEL



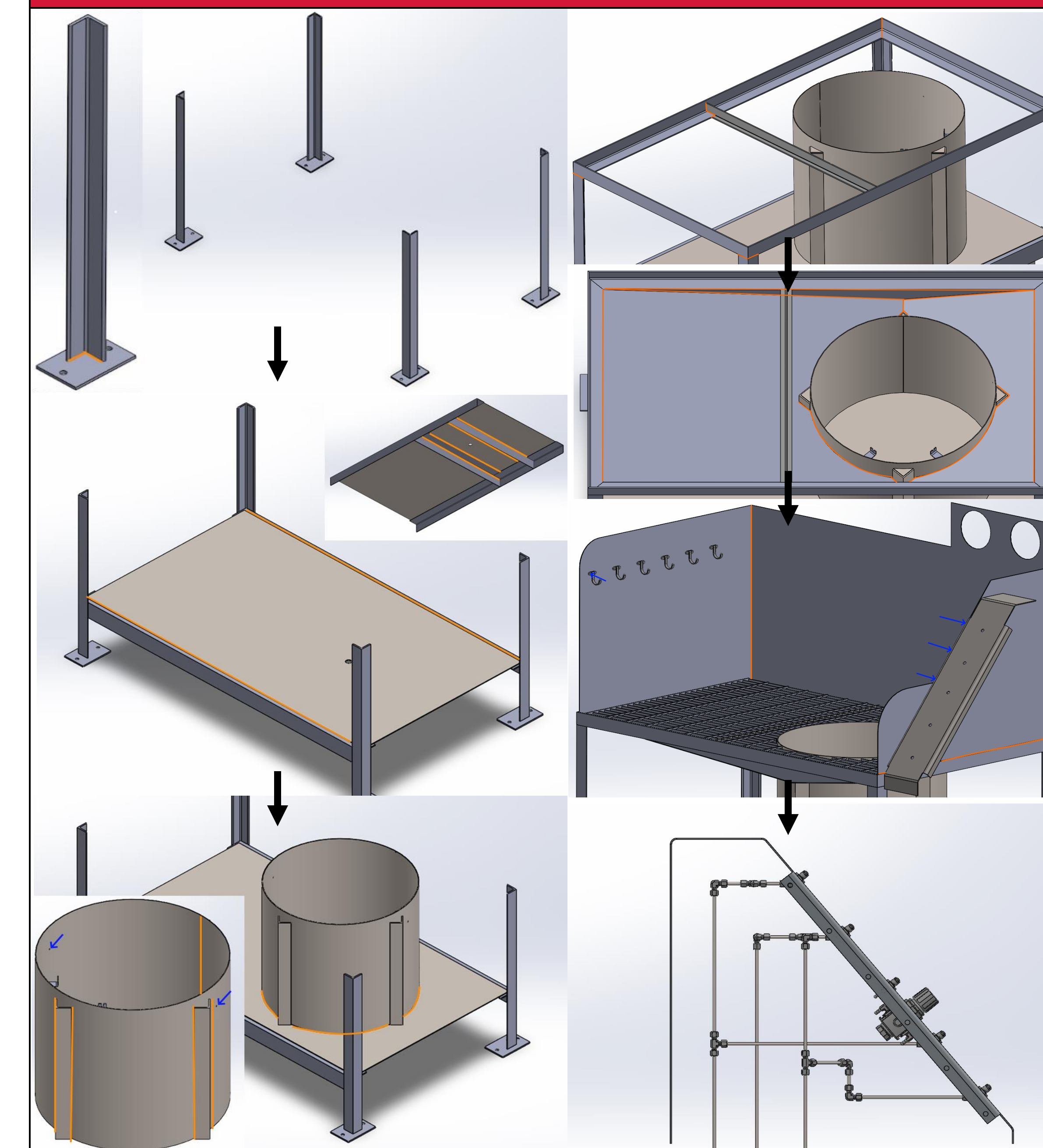
PROJECT OVERVIEW

Due to increased production demand for high-output gas turbines driven by the data center boom, Solar Turbines required additional hydrostatic leak-testing capacity to support increased fuel injector production throughput. This project included the design, fabrication, and validation of a new hydrostatic leak-test bench featuring a 10-gallon pressure vessel rated for 300-psi testing to verify fuel-injector brazed joints.

KEY IMPROVEMENTS

- Large tank size allows for testing of all fuel injector sizes
- Lower benchtop height improves accessibility
 - Water supply is now permanently fixed
- Drainage system prevents pooling of water on top surface

MANUFACTURING STEPS



PIPING SYSTEM

- Capable of providing 300 psi of water to the pressure vessel
- Made up of 24 ft of steel tubing
- Powered by compressed air

BENCH STRUCTURE

- 304 Stainless Steel
- Strong: Supports 950 lbf with a Safety Factor of 5.51
- Durable: Fatigue Life Safety Factor of 4.4
- Room for additional tools and test unit storage



ACKNOWLEDGMENTS

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