



General Information

June, 2009



About TWIN

- Facility is located in South Windsor, Connecticut USA, near Pratt & Whitney and IAE Headquarters.
- Independently owned and operated:
 - Paul D'arcy (former President, Windsor Airmotive) purchased TWIN in 1987 and entered TWIN into the Turbine MRO markets that same year.
- Since 2002, our MRO business has grown at least 10% each year across all markets.
- Today over 95% of our business is Turbine Component MRO, with a global and diverse customer base.



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Overhaul Capabilities by Engine 1

- Major Commercial Aviation MRO Markets;
 - CFM56
 - CF6
 - V2500
 - PW4000
 - PW2000
 - JT9D
 - JT8D & JT8D-200



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Overhaul Capabilities by Engine 2

- Major Military MRO Markets;
 - F100
 - F117
 - F119
 - TF33
 - J85
- Major Industrial MRO Markets;
 - GG4/FT4, GG8/FT8
 - LM1500, LM1600, LM2500, LM5000, LM6000



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Bearing Housings Group

- Typical components are bearing housings and supports, and seal supports. Typical repairs include carbon seal install, bore restoration, seal groove restoration, flange replacements and more.



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Knife Edges/Seal Teeth Group

- Typical components are rotating parts with knife edge seals, compressor turbine and bearing compartment seals. Typical repair is electron beam weld build repair of the knife edges or seal teeth.



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Turbine Supports Group

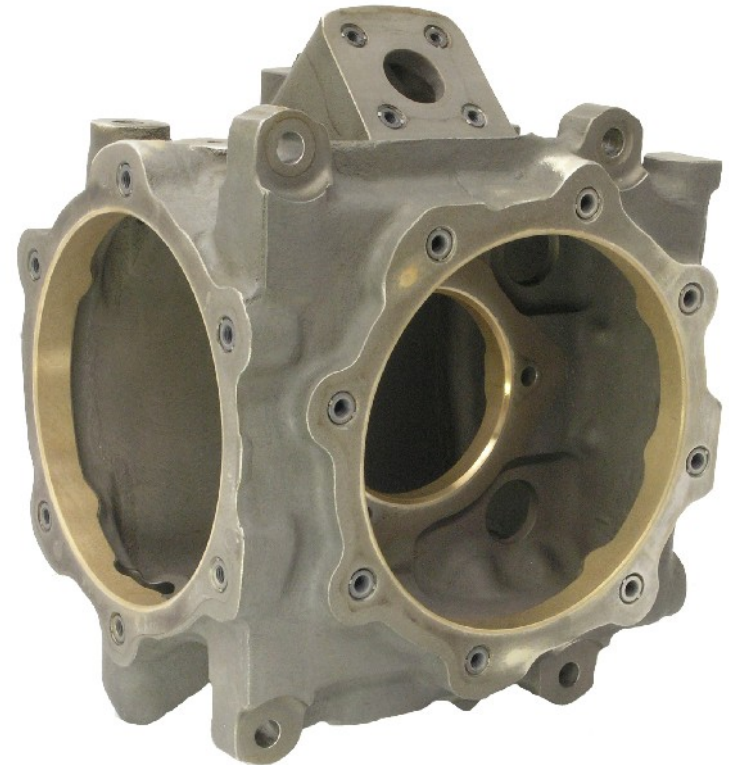
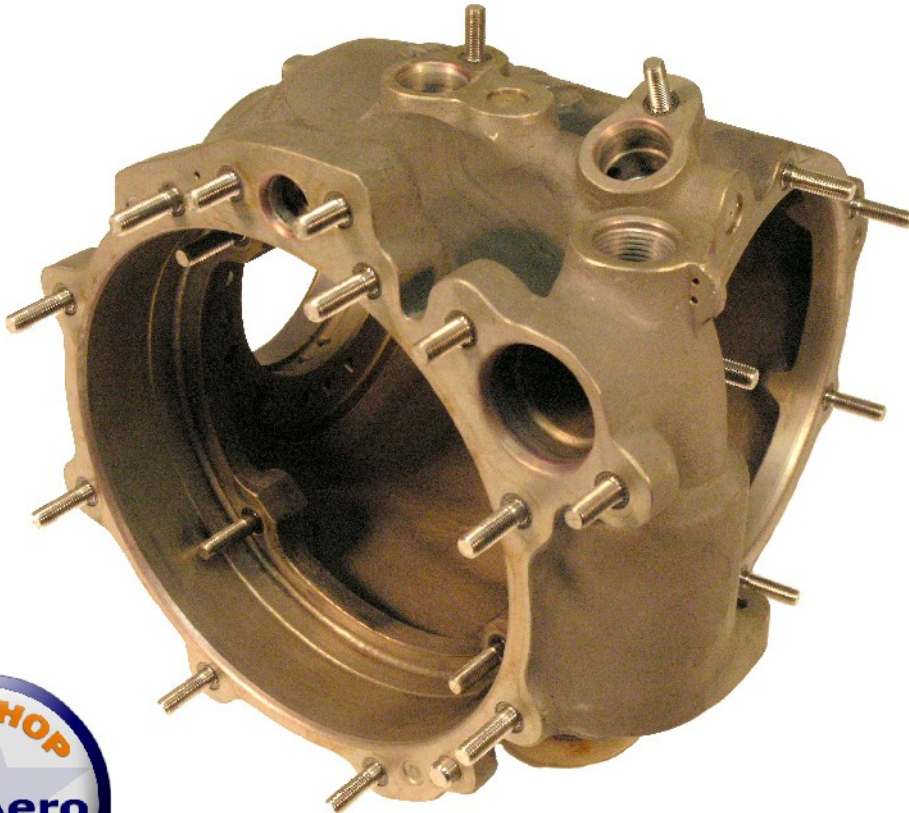
- Typical components are Supports for NGV, Turbine Airseals and Duct Supports. Typical repairs include specialized weld repairs of heat resisting alloys.



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Aluminum Housings Group

- Typical components are usually assorted gearbox parts - including the main gearbox, angle gearbox, towershafts and accessories. Typical repair is sleeve repair of bores, managing bore migration issues.



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Gears Group

- Typical components are gearshafts and other small rotating parts. Typical repair is chromium plate or HVOF coat the bearing journals, precision finish grinding and balancing.



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Rotating Parts Group

- Typical components include stub shafts and rotating airseals. Typical repair are journal repairs by chromium plate, plasma or HVOF coat and precision finish grinding.



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Other Product Groups, 1 of 2

- **Heatshields:** Typical components are bearing compartment and turbine heatshields. Typical repairs include weld repairs and foil patch repairs.
- **Combustion Chamber Components:** Typical components include clamps, guides & bolts, Typical repairs are hardcoat replacement & weld repairs.
- **LPC Supports/Cases:** Typical components include bleed valves and supports.
- **HPC Supports/Cases:** Typical components include titanium, steel or nickel supports and cases.



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Other Product Groups, 2 of 2

- **Brackets & Other Supports:** Typical components include VSV Actuator brackets, synch ring assemblies and miscellaneous components.
- **Inspect & Blend:** Typical components include small parts requiring clean, inspect and blend or other minor repairs. These components are always candidates for batch repair and inspection to lower costs
- Process and Repair Development efforts center around these 12 major component groups, and they encompass the majority of the components overhauled by TWIN. We ALWAYS consider components outside these main groups if we feel we can meet customer expectations...



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Repair Development Services

- OEM Source Demo Repairs, DER Repairs, Customer Repairs
- Proven Performance: TWIN developed repairs saved customers over \$10 Million in replacement part costs in 2008



LASER WELDING NOW AVAILABLE



HVOF SPRAY NOW AVAILABLE



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Some Engine Center Customers

- Aerothrust
- American Airlines E&M
- Air Canada Technical Services
- Air China/AMECO
- Bedek IAI
- China Airlines E&M
- Delta TechOps
- EGAT
- GE Aviation (Engine Services)
- Iberia E&M
- ITR Mexico
- Japan Air Lines
- Korean Airlines E&M
- Luftansa Technik
- MHI
- MTU
- Pacific Gas Turbine Center
- Pratt & Whitney
- Snecma Services (SAFRAN)
- ST Aero
- TAP Air Portugal E&M
- United Services



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TWIN Delivers

- Overhaul of 8000+ Part Numbers
- Market Leading Quality
- Delivery to Your Turn Time Requirements
- Responsive Customer Service
- Salvage Repair Capabilities
- Competitive Pricing





The Leaders in Turbine Component Repair!

Thank you!

Contact us today for more information.

Main Office Phone: 1.860.289.6041

Main Office Fax: 1.860.289.0561

sales@twinman.com

