Airfoil Services

Airfoil Services has been jointly owned in equal shares by Lufthansa Technik and MTU Aero Engines since 2003. Part of Lufthansa Technik’s Engine Parts & Accessories Repair (EPAR) network, Airfoil Services specializes in the repair of blades from major aircraft engine manufacturers, including General Electric, CFM International and International Aero Engines.

Service spectrum
Located in Kota Damansara in Malaysia’s state of Selangor, Airfoil Services merges the leading-edge competencies of both parent companies. Airfoil Services is specializing in the repair of engine airfoils for low-pressure turbines and high-pressure compressors of CF6-50, CF6-80, CF34 engines as well as the CFM56 engine family and the V2500. The ultra-modern facility is equipped with state-of-the-art machinery and has installed the most advanced repair techniques such as the Advanced Recontouring Process (ARP), also offering special repair methods such as aluminide bronze coating and high velocity oxygen fuel spraying (HVOF). Organized according to the philosophy of lean production, the repairs follow the flow line principle. Customers benefit from optimized processes and very competitive turnaround times offered at cost-conscious conditions. At the same time, the quality of work reflects the high standards of the two German joint venture partners.

In focus: Advanced Recontouring Process (ARP)
The Advanced Recontouring Process (ARP) is unique worldwide. Worn compressor blades are first electronically analyzed and then re-contoured in a precision method using robot technology. The restored profile of the engine compressor blades is calculated as a factor of the reduced chord-length of the worn blades so that the best possible aerodynamic profile is obtained. The optimized profile is applied by a grinding robot. Since only the minimum of material is removed, the Advanced Recontouring Process significantly increases the service life of the components. On top, the improved profile of the blades and the correspondingly optimized engine aerodynamics reduce the fuel consumption of the engine. Taken together with the increased compressor performance and the longer service life of the engine blades, significant cost reductions are achieved.

Outlook
The highly skilled workforce, the state-of-the-art repair methods and the innovative flow line principle make Airfoil Services one of the world’s leading centers of excellence in blade repair. Airfoil Services will continue to receive technical support from both Lufthansa Technik and MTU to maintain the company’s high-technology process at the top level of quality and efficiency. Work is under way to add further engine types to the portfolio, with the future product range expected to include other engine parts.

Key facts

| Founded | 1991 |
| Personnel | 420 |
| Capacity | 6,000 m² |
### Engine Parts & Accessories Repair

**Turbine airfoils**
- CF6-50
- CF6-80
- CF34
- CFM56-3
- CFM56-5A, -5B, -5C
- CFM56-7B/P
- V2500

**Compressor airfoils**
- CF6-50
- CF6-80
- CF34
- CFM56-3
- CFM56-5A, -5B, -5C
- CFM56-7B
- V2500

### Additional Services
- Advanced Recontouring Process (ARP)
- Aluminide Bronze Coating
- High Velocity Oxygen Fuel Spraying (HVOF)
- Chromide coating, aluminide coating and 3D automated welding