



SPF and SPF-DB* Users

(*Super Plastic Forming – Diffusion Bonding)

EXCLUSIVE AND COST-EFFECTIVE SOLUTIONS

Aubert & Duval offers toolings optimized for titanium or aluminum parts:

- **Specific grades** with optimized heat treatment
- **Exclusive:** moulds and press platens up to 20T
- **Examples:**

Jet Engine Lip	After Body
Engine Blades	Leading Edge
Engine Exhaust Outlet	Etc.



Examples of SPF applications :
 Engine blades,
 Jet engine lip,
 Leading edge

Eurofighter engine exhaust outlet



Benefits



Mould for military engine exhaust outlet



Tooling for Jet flap or windshield front fairing of airplane

- **Resistance to thermo-mechanical fatigue**
- **Resistance to high-temperature corrosion**
- **Dimensional stability**



The High-Tech Foundry

The Aubert & Duval foundry

The Aubert & Duval foundry is a dedicated workshop integrated in one of the most advanced Special Steel plants

- **Technically advanced equipment:** melting capacities of 100 kg to 40T with Electric Arc Furnace, Vacuum Induction Melting, centrifugal casting (up to 1.5T), heat treatment. Possibility of hipping.
- **Plant (R&D, Metallurgy Engineering, Quality Control)** dedicated to most demanding markets: aerospace, nuclear energy, etc.
- **Highly skilled workforce**



As a consequence:

- **more than 180 original grades:** special steels (heat resisting materials, low thermal expansion coefficient), nickel and cobalt base alloys, ...
- **large sizes :** up to 12m (e.g. helicopter blades) and parts from 5g to 20T
- **stringent quality and Q/C,** in line with aeronautical requirements
- **short lead-times:** in the range of 10 - 12 weeks

