



CLEAN MACHINES

Inertial navigation systems are assembled in clean rooms to keep out the slightest hint of contamination.





1



3

■ High-tech lab

Sagem's new Coriolis building, spanning some 14,000 square meters (151,200 sq. ft.), including 6,500 square meters (70,200 sq. ft.) of clean rooms, is largely dedicated to the production of inertial navigation components and subassemblies. Used in ships, planes and rockets, these devices are based on gyroscopes of various types. The most sophisticated models, including hemispheric resonant gyros, laser gyros, etc., demand production environments without the slightest outside particle, to ensure their integrity and precision. Workshops such as these, offering tightly controlled environments, are called clean rooms, and expertise in this technology is one of Safran's competitive advantages. Furthermore, Safran has constructed a building meeting High Environmental Quality (HQE) standards, with 5,000 square meters (54,000 sq. ft.) of photovoltaic panels on the roof, clearly showing its commitment to sustainable development, spanning ecological, economic and social aspects.



2

1. Wiring

Laser gyro autonomous production unit, an ISO 7 class clean room: wiring the sensor under a binocular microscope.

2. Inspection

Hemispheric resonator gyro (HRG) autonomous production unit, an ISO 5 class clean room: inspecting resonator subassemblies using binocular microscopes.

3. Bonding

Laser autonomous production unit, an ISO 5 class clean room: bonding the piezoelectric actuators on mirrors in the laser cavity.

4. Measurement

Laser autonomous production unit, an ISO 5 class clean room: measuring the laser's light intensity on a test bench.

5. Eco-design building

The new Coriolis building meets HQE (High Environmental Quality) standards.

6. End of the day

For the men in green, the day always ends with the same ritual: they have to remove and put away their pressure suit to protect it from any contamination. Gloves and masks are used only once, then recycled.



4



5



6