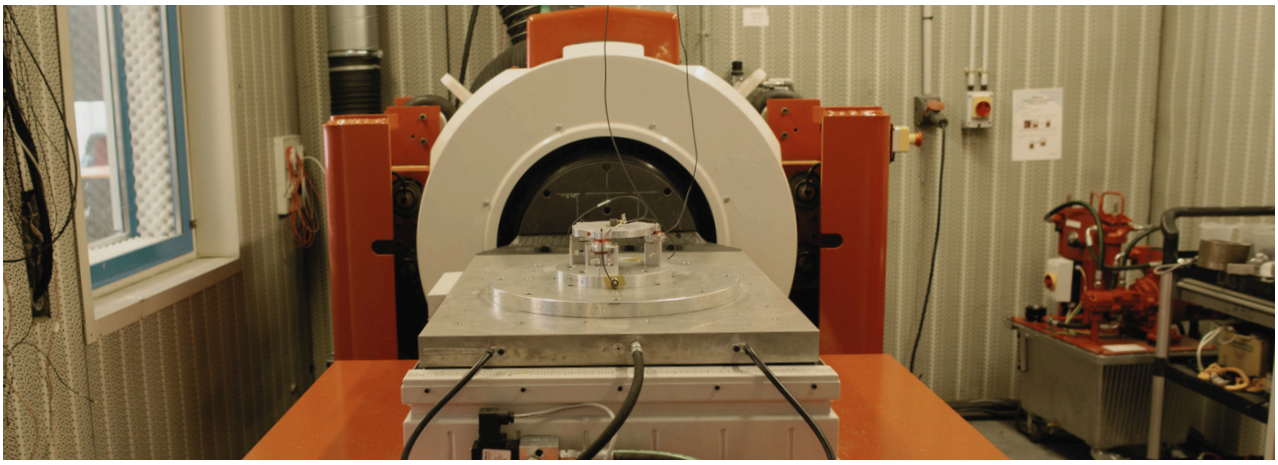
TESTING LABORATORY

SMAC testing facilities.



SMAC's testing laboratory is equipped with facilities for characterizing and validating equipment under thermal, mechanical, dynamic, vibration, and shock conditions.

These resources are utilized both for projects conducted with our clients and for the development of our own damping, isolation, and sealing solutions.

OUR TESTING FACILITIES

CLIMATE:

- Heat, Cold, Humidity, Vacuum
- Chambers up to 0.23 m^3 – from -40°C to +300°C, depending on the oven.

VIBRATIONS:

- Sine, Random, Sine-on-Random, ...
- LDS V8, V875, and V721 shakers
- Force: up to 60 kN
- Displacement: +/- 3 inches
- Testable equipment: up to 250 kg

COMBINED CLIMATIC AND VIBRATION TESTING:

- 0.09 m^3 test chamber, with a temperature range of -40 °C to +90 °C, integrated with electrodynamic shakers for vibration testing under controlled temperature conditions.

SHOCKS:

- SRS (Shock Response Spectrum) and classical shocks (half-sine, sawtooth, etc.)
- Pyrotechnic-type SRS: simulated via metal-on-metal impact.

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LABORATORY EQUIPMENT

EQUIPMENTS

Two vibration shakers – up to 60 kN

- Equipped with a vibration table and 16 measurement channels.
- Testing can be performed within a climatic chamber (-40 °C / +90 °C).

MTS traction/compression machines

- 20 kN and 50 kN.

Non-contact 3D measuring machine

KISTLER test bench

- Microvibration test bench equipped with high-sensitivity dynamometers and a 0g setup for measurements in a space environment.

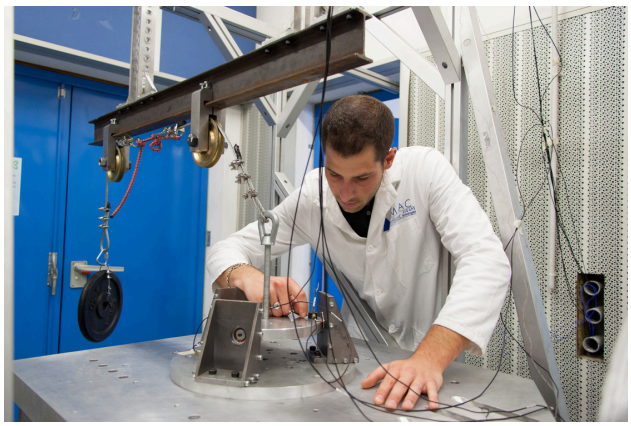
Pyrotechnic shock

- Pendulum-type test rig: reproduction of severe pyrotechnic shocks.

Thermal ovens

Various capacities:

- max 300 °C.
- Vacuum oven (10 mbar, max 250 °C).





BEYOND TESTING FACILITIES

The SMAC team's expertise extends beyond characterization: drawing on its experience in shock and vibration damping, the team is able to design and size solutions tailored to the constraints identified during testing.

NEED TO RUN A TEST FOR YOUR PROJECT? CONTACT US.

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