

CRYOGENIC MECHANICAL TESTING CENTER

MORE THAN MECHANICAL TESTING

- A WIDE RANGE OF TESTING
- FROM ROOM TO CRYOGENIC TEMPERATURE
- FROM STANDARD SPECIMENS TO SCALE 1 SUB-SYSTEMS

Material Testing @-253 °C

Over the past 40 years, ArianeGroup, within its division Products, Equipment & Services, has acquired a **strong heritage on cryogenic mechanical testing up to 20 K (-253 °C)** for materials characterization and more...

Temperature

- › At very low temperatures **from 20 K to 273 K**, including thermal cycling and cooling rate

Strength

- › Strength measurement ranging **from 100 N to 250 kN**

Tests

- › **Statics tests** (COFRAC accredited cryogenic tensile tests), **compression** uniaxial bending...), and **dynamics** (LCF/HCF, FCG, K1C...)

- LCF: Low Cycle Fatigue
- HCF: High Cycle Fatigue
- FCG: Fracture Crack Growth
- K1C: Fracture toughness

cofrac



(TESTING)
Accreditation
no.1-6213
Scope available
on www.cofrac.fr

Conception

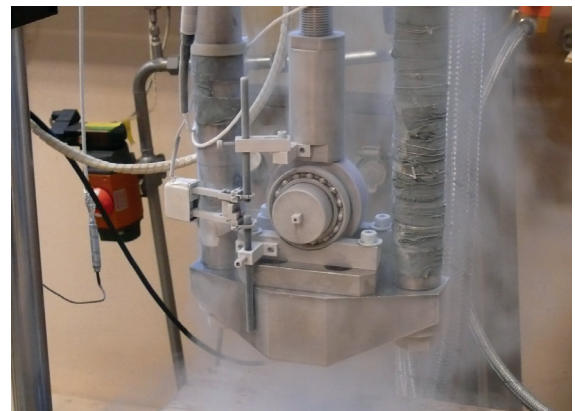
- › A customized conception for technologic **testing up to 24 sensors simultaneously**
- › Instrumentations developed for very low temperatures, making it possible to **be proactive in the design of complex tests**

Materials

- › Principally on metallic materials, **we extend skills** to ceramics and composite materials

Dimensions

- › **Two technologies of cryostats**, allowing to test from small specimens up to 800 mm height and diameter sub-systems, including glasses for visual inspection during testing



A UNIQUE EXPERTISE TO MEET OUR CUSTOMERS' NEEDS

On top of mastering cryogenic mechanical testing, ArianeGroup offers on the Vernon site reliable expertise to its customers thanks to unique competencies in materials & processes as additive manufacturing including chemistry, X-ray diffraction, hardness, metallography, failure analysis... on the same location for a fast reaction & deep investigations.

CONTACT

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INFORMATION

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