



BAMOCRY MODULAR CRYOGENIC TEST BENCH

HOT FIRING TEST BENCH FOR CRYOGENIC ENGINES

- A VERSATILE AND AGILE TEST FACILITY OFFERING TESTING CAPABILITIES IN THE [10 KN-80 KN] THRUST RANGE
- DESIGNED FOR COMBUSTION CHAMBER TESTS, ENGINE TESTS, AND STAGE TESTS, ON A LARGE RANGE OF PRESSURE
- IN SUPPORT TO THE GROWTH OF NEWSPACE ACTORS IN THE MICROLAUNCHER BUSINESS

BAMOCRY

BAMOCRY, a modular cryogenic test facility, is now accessible to external clients for on-site testing at ArianeGroup's premises in Vernon. This setup offers the advantage of a controlled environment equipped with all necessary safety measures, allowing New Space companies developing micro-launchers to test their newly developed combustion components rapidly and efficiently.

Our service:

BAMOCRY IS VERSATILE

- › Wide range of pressure / flowrate / configurations
- › High Pressure (or pressure-fed) combustion chamber tests
- › "Low pressure" (or pump-fed) engine tests
- › Propulsive stage tests
- › Vertical or horizontal thrust
- › Different fuels

BAMOCRY IS AGILE

- › Enabling rapid switch between configuration
- › Providing rapid answers to specific needs



FLUIDS	
Oxydizer: Liquid Oxygen	HP 150 bar (300 l, 16 kg/s), BP 20 bar (8,000 l)
Fuel: Liquid Methane	HP 150 bar (300 l, 20 kg/s LCH4), BP 20 bar (8,000 l)
Nitrogen and Helium	at high pressure (220 bar)
SIZING PARAMETERS	
Thrust class	[10 KN, 80 KN]
Maximum tested element weight	1 ton
Test cell dimension	9 m * 9 m * 5 m
Low and high frequency channels	up to 100 kHz
CONTROL & COMMAND SYSTEM	
Test bench control & command system may be linked with any engine controller through standard Ethernet protocols (Bus Mode; TCP; DUP)	
OPTIONAL FUNCTIONS	
Neutral gas, ground ignition system, water cooling, ignition ground feeding system	

A UNIQUE EXPERTISE TO MEET OUR CUSTOMERS' NEEDS

BAMOCRY is designed to enable combustion element testing across a large range of pressure and thrust, with the flexibility to evolve with customer needs. It offers a unique opportunity to perform hot firing tests, leveraging ArianeGroup's expertise to ensure safe operating conditions.

CONTACT

Fabienne ROBIN

fabienne.robin@ariane.group

INFORMATION

www.ariane.group