COMBUSTORS

ON BOARD WITH US
If you are looking for:
A reliable partner
Advanced design capabilities
A solutions provider
International team support
A great design specialist and manufacturer
Careful support for CRO activities

THEY'VE ALREADY CHOSEN US
General Electric
Rolls-Royce
Pratt&Whitney
Pratt&Whitney Canada
Eurojet
Snecma
Italian Air Forces
Brazilian Air Forces

Avio Aero
A GE Aviation Business
YOUR TECHNOLOGY PARTNER

OVER 25 YEARS OF EXPERIENCE

DESIGN, MANUFACTURING AND TESTING

CONVENTIONAL AND LEAN BURN INJECTION SYSTEMS

LOW EMISSION TECHNOLOGIES

ECOFRIENDLY AERORENGINE

DESIGN
MANUFACTURING
ASSEMBLY
TESTING
DELIVERY
MRO & CRO

YOUR TECHNOLOGY PARTNER
DID YOU KNOW?
Over 25 years of experience and a wide range of products that include the EJ200, PW100 and APU. From business jets to regional and narrow body aircraft we are certain that our expertise in design, manufacturing and testing is a winning element if you are looking for a reliable partner and field support.
We rely on leading-edge technologies to promptly meet the demands of an ecofriendly aeroengine: our engineers and highly specialised technicians offer full support and we guarantee the quality of all our products and customer care services.

COMBUSTORS

TAKE A LOOK AT WHAT WE CAN DO

ALL AROUND DESIGN
- Fast sample production with rapid manufacturing technology
- Consolidated research network
- Parametric CAD generation
- Detailed components optimisation
- In-house 1D thermal analysis tool for fast concept design
- QDRV methodology: Quick-Design-Rapid-Validation
- Consolidated design process for reliable components

DISTINCTIVE TECHNOLOGIES
- CoCrMo7 injection system by DMLS
- Low emission technologies
- Patented injection system fuel feeding
- Effusion cooling technologies
- Pilot and main fuel staging to control stability, pressure fluctuations and emissions
- Thermal barrier coating

BEHIND THE PRODUCTION PROCESS
- Laser drilling with in process permeability control
- Additive manufacturing
- Dome forming simulation
- Complex shape forming
- Welding: EBW, GTAW, RSW
- Plasma spray coating
- Vacuum brazing
- Machining
- NDT: FPI, X-Ray, US

TESTS & MEASUREMENTS
- In-house and research network complementary capabilities
- Different facility configurations for tubular and full annular combustor
- Tests at low pressure conditions
- Tests at sub-atmospheric conditions
- Aerodynamic, pressure drop test and exit velocity profile
- Ignition & lean blow-out limits (LP and sub-atm.) with video-recording system
- Emissions combustion test [LP, MP, HP]
- Thermal test
- Water (liquid/vapor) injection test
- Assembly and instrumentations with thermocouples, pressure, strain gauges, rakes, dynamic transducers
- Thermal paints
- Visual, boroscopic and NDT inspections
- Rig parts design & procurement
- LDV flow field investigation
- PDA (spray characteristics)
- IS Thermo-acoustics response analysis
- Liquid crystal method for heat transfer coeff. measurement
- Effusion cooling - acoustic interaction investigation
- Integration and combustor technology validation

CONNECT WITH US
combustors@avioaero.com - www.avioaero.com

OUR COMBUSTORS

EJ200RH  RB199  SaM 146  PT6A  RE 220
APU 36-170  APU ARG0 FA 150  RB183 TAY  PW100

- Design Responsibility
- Manufacturing
- MRO

OUR COMBUSTORS PLANTS ARE LOCATED IN:

POMIGLIANO D’ARCO (ITALY)
78,000 Sqm specialised in Machining and CRO

BRINDISI (ITALY)
50,900 Sqm specialised in MRO

CAMERI (ITALY)
2,400 Sqm specialised in Additive Manufacturing

OVER 25 YEARS OF EXPERIENCE