ON BOARD WITH US
If you are looking for:
A reliable and winning partner
Over 50 years of experience in PGB
and AGB design and manufacturing
Advanced design capabilities
A total solutions provider
International support team
An experienced casting partner
Full support for CRO and MRO activities

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

Avio Aero
A GE Aviation Business

YOUR TECHNOLOGY PARTNER
MECHANICAL TRANSmissions
POWER GEARBOXES AND ACCESSORY DRIVE TRAINS

BEHIND THE PRODUCTION PROCESS
- Proven track record across different products and platforms
- Extensive product range
- Excellent in-service performance
- Solid functional integration
- Cross-sector knowhow, in design, testing and control
- Verticalization of production
- Dedicated manufacturing cells
- Lean production cells
- Sample production with rapid prototyping technologies
- Leading edge technologies for cost efficiency
- Consistent quality of part thanks to stable machining/manufacturing conditions
- State-of-the-art tools to design the process

TESTS & MEASUREMENTS
- Propeller loads, oil flow rate and temperature settings
- Automatic mission simulation
- Health monitoring
- Development tests
- Certification endurance tests
- Low speed durability test
- Static fatigue testing on housing
- Thermal mapping
- PGB efficiency evaluation
- Attitude test

WE CARE, WE OVERHAUL
- ADT, LPT (NGV and case) and oil tank - GEnx
- ADT, LPT (nozzle) - GE90
- AGB, Oil pump and Oil tank - V2500
- ADT and Oil tank - Trent900

DID YOU KNOW?
Over 50 years of experience and over 4,800 gearboxes produced every year (over 40,000 gears of different types such as Bevel, Sun, Spur, etc). Our expertise in design, manufacturing and testing is a winning element if you are looking for a reliable partner. Thanks to our design capabilities and manufacturing techniques, ranging from casting of aluminium and magnesium parts to gear machining and gearboxes assembly and testing we can deliver excellent helicopter, turboprop and aeroengine transmissions. Our engineers and highly specialized technicians offer full support and we guarantee the quality of all our products and customer care services.

YEARS EXPERIENCE

TAKE A LOOK AT WHAT WE CAN DO
ALL AROUND DESIGN
- Co-design with customer engineering
- Integrated gearbox analysis
- High power density gearbox design
- Integration with engine lube and fuel systems
- Whole system modeling and dynamics assessment
- Low part count design for improved reliability
- Fireproof design
- Air/oil system technologies
- Advanced gear design methodologies (including tooth topography optimization based on true stress calculation)
- Bi-helical gears
- High and low speed planetary systems
- Split torque architecture
- Offset planetary architecture
- Robust bevel gear optimisation
- High strength bearing materials
- Integral bearing races
- Health monitoring system
- Damage tolerance and 3D crack propagation
- Virtual testing
- Hot hardness steel
- Castings design and melting process simulation
- Assembly tool concept definition, design and construction
- Light alloy housing with integral cored lines

OUR MECHANICAL TRANSMISSIONS

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

OUR MECHANICAL TRANSMISSIONS PLANTS ARE LOCATED IN:
RIVALTA DI TORINO (ITALY)
167,000 Sqm specialised in Design and Machining

BORGARETTO/BEINASCO (ITALY)
25,000 Sqm specialised in Casting

HARBIN (CHINA)
27,000 Sqm specialised in Machining

TURIN (ITALY)
12,000 Sqm specialised in Testing

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

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