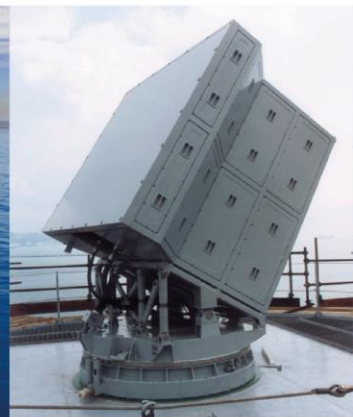




COMPANY PROFILE



M.P.G. Instrument s.r.l.

Since 1984, Instrumentation for Avionics and
Telecommunication, Consultancy and Tailored Systems

www.mpginstruments.com

AGENDA

Our History

Company Description

Company Capabilities

- Commercial & Distribution
- R&D and Production for customized solutions
- Maintenance & Service



Our History



- Established in 1984
- Main Activities: Commercial, R&D, Service
- 25 people employed
- Average Turnover: 10 M€ (2020: 12 M€)



M.P.G. INSTRUMENTS SITES



Milan Office

- Board Management & Commercial
- R&D Direction
- Service Center, Assistance and Small Production
- Quality Management & Configuration
- Final Verification and Pre-Delivery

Rome Office

- Administration
- Commercial (Center and South Italy)
- Import, Export & Customs Formalities
- NOS / 185/90 / ITAR Authority Clearance



OUR MISSION

To be Leading in the field of Test and Measurement Solutions
in Aerospace&Defense for Civil & Military Applications and Industrial
market.

Focused to provide **long term customer relationship** with
best Service and Calibration Support.



QUALITY

All MPG activities are executed in compliance to the operating Company Certification by Military / NATO Quality System:

- AER-Q-2120 (AQAP 2120) and ISO 9001:2015.

MPG is certified by RINA for Aviation, Space and Defense requirements, in accordance to:

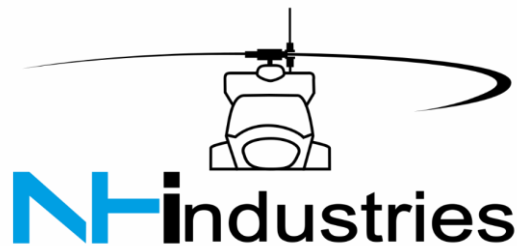
- EN9100:2016 for R&D and Production;
- EN9110:2016 for Instrumentation Service and Maintenance;
- EN9120:2016 for Commercial for Aerospace and Defense.



MAIN CUSTOMERS



Polizia di Stato



COMPANY CAPABILITIES

M.P.G. Instruments is structured in three BUs

✓ *Commercial&Distribution*

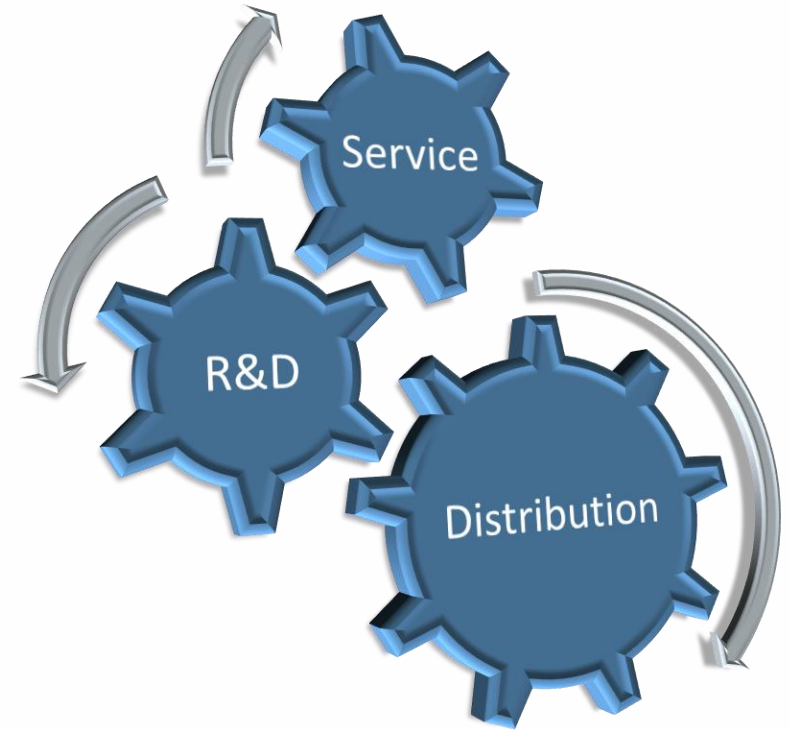
- C.N.I. Instruments
- RF Instrumentations
- Fiber Optics Testers
- GPUs
- Axis Motion System Tables
- RF & Microwave Components
- Military Crypto&Comms Instrumentation
- Special Requests (Brokerage)

✓ *R&D/Systems Integration*

- Aircrafts Ground Equipment (AGEs)
- Electronic Test Equipment (ETEs)
- Special To Test Type Equipment (STTEs)
- General-Purpose Automatic Test Equipment (GP-ATEs)
- Products Development (MPG P/Ns)

✓ *Service*

- Certified Service Center for main official distributions
- Calibration Provider for main instruments categories and special instrumentation



COMPANY CAPABILITIES



MPG CONFIDENTIAL

	Electronic Systems		Navigation & Surveillance			Communications	
	Board Electronics	System Controllers & Databases	GNSS	Transponders	NAVAIDS	Radios & MILCOM	Telemetry (TT&C) & SATCOM
Research, Design, Prototyping	Grey	Grey	Grey	Grey	Grey	Grey	Grey
Validation Test	White	White	Yellow	Blue	Blue	Blue	White
Production Test	Green	Green	Green	Blue	Blue	Blue	Grey
Logistic & Service	Green	Green	Yellow	Blue	Blue	Blue	Grey

Grey	Not Applicable
Yellow	Specialized Instrumentation Distribution
Green	Test Set Development/Obsolescence Management
Blue	Specialized Instrumentation Distribution & Test Set Development/Obsolescence Management



COMPANY CAPABILITIES

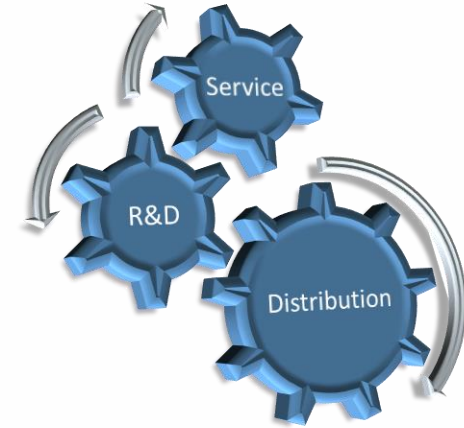


MPG CONFIDENTIAL

	RF/Microwave Components			RADAR Systems		EO/IR Sensors & Systems	EW Systems & SIGINT	
	Microelectronics	TRMs	Antennas	RADAR Sub-Systems	RADAR Systems	Optronic Systems	EW Radar	EW Comms & Nav
Research, Design, Prototyping	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey
Validation Test	White	Yellow	White	Blue	Blue	Blue	White	White
Production Test	White	Yellow	Yellow	Blue	Blue	Green	White	Yellow
Logistic & Service	White	Yellow	Yellow	Blue	Blue	Green	White	Yellow

Grey	Not Applicable
Yellow	Specialized Instrumentation Distribution
Green	Test Set Development/Obsolescence Management
Blue	Specialized Instrumentation Distribution & Test Set Development/Obsolescence Management





COMPANY CAPABILITIES

Commercial & Distribution

Research & Development

Maintenance & Service



EXCLUSIVE MAIN DISTRIBUTIONS



Aircraft AGE Systems: Hippag
Launcher, Bench for Bus 1553 &
Receiver Sonar System



Formerly AEROFLEX/COBHAM
Leader for Instruments
in Avionics, CNI,
& Telecommunication



40.000 components in stock:
parts for RF & Microwave.
Ready for delivery in 3 days.



DME & DME-P
Instruments



50 GHz RF Shield BOX & Couplers
Ready for 5G.



Military Crypto Comm
Instruments



Tailored Power Supplies,
GPU, Harsh environment.



1 to 3/6 Axis Motion system
Table for light Simulation,
ballistics test.
Centrifuge.



[IDEAL AEROSMITH Website](#)

Inertial test system

- 3 Axis Position/Rate table system
- Single and multi-axis
- Centrifuge system
- Motion table controllers
- Scorsby motion table

Application Example: Missile flight simulation Hardware in the loop

- ***10ms update rate with GPS simulation***
- Electric flight motion simulator
- Radome Boresight Error



Aircraft Instrument Test
Equipment



Three-axis Table System



Three-axis and Five-axis
Flight Motion Simulator (FMS)

HITZINGER Ground Power Unit

[HitZinger Website](#)

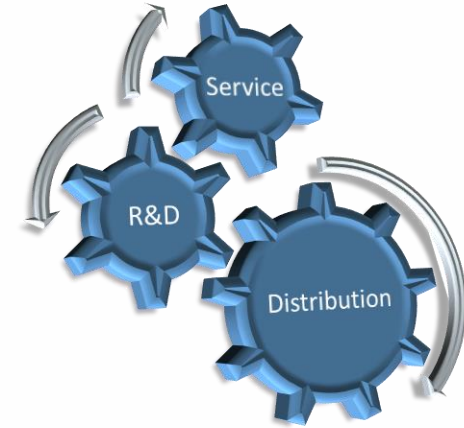
- Exclusive Distributor for Leonardo SpA and Italian Military Market
- Turn-key tailored power solutions
- Main Products
 - Rotary Diesel UPS
 - Diesel Generators
 - Frequency Converters
 - Alternators
 - 400Hz Airport Ground Power



[PASTERNAK Website](#)

- Microwave Components and Custom Assemblies
- 3-days Delivery
- More than 40,000 Products
- 99.4% Off-the-Shelf Availability





COMPANY CAPABILITIES

Commercial & Distribution

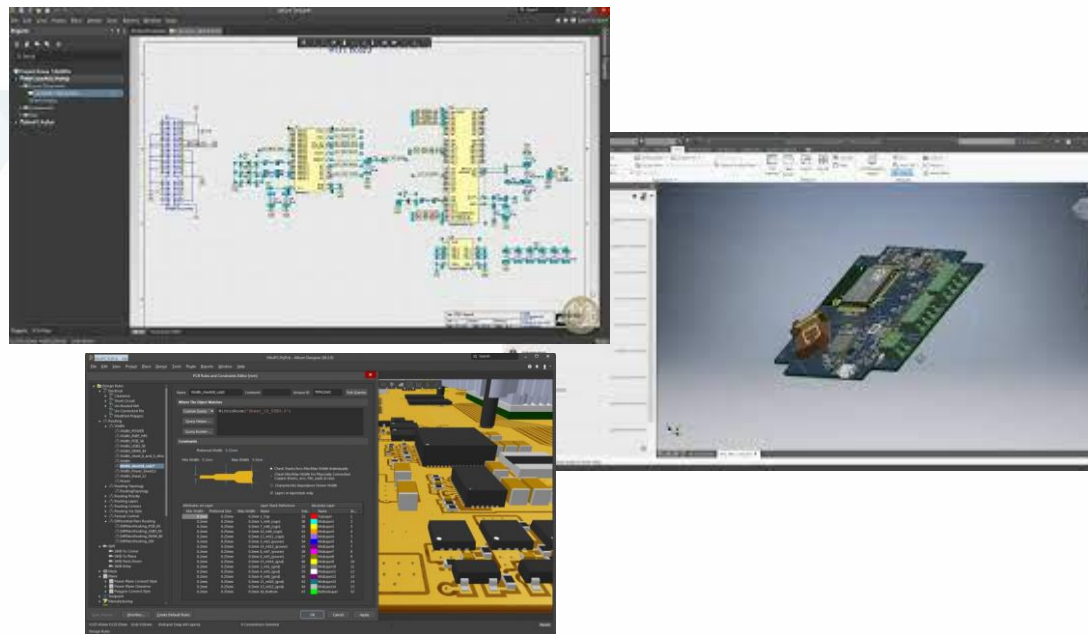
Research & Development

Maintenance & Service



MPG R&D SKILLS IN R&D BU

- Mechanical design
 - 2D – [LINK1](#) – [LINK2](#)
 - 3D
- Electronics design
 - Digital - [LINK](#)
 - Analog
 - RF / MicroWave - [LINK](#)
 - FPGA
- Software/Firmware design
 - LabVIEW
 - Textual languages
 - VHDL (for FPGA)



VIVADO™



MPG PRODUCTS and R&D

R&D activity is divided in two main branches:

- *Measurement Instrumentation*

- Small Productions
- Developed under customer's requests (i.e. AGE) or market driven (i.e. instrumentation obsolescence and/or company strategy)
- Total integration with Distribution and Service Business Units

- *Automated Test Equipment*

- Usually Special-to-Type Test Equipments (STTEs)
- Developed according with customer's requirements
- Single unit usually, low replica potential



MPG 4020 – VOR/ILS RF SIGNAL GENERATOR



- Example of Measurement Instrumentation
- RF Generator suitable for the testing of MMR & DME/P Aircraft receivers.
- **MPG 4020 Series are the MPG solution to Aeroflex obsolescence of NAV 750C, 2030 and 2040 Series.**
- Emulated GPIB commands enable simplified replacement of obsolete instruments.
- MPG 4020 – 4021 - 4022: **Multi** Channel RF Avionics Generator.





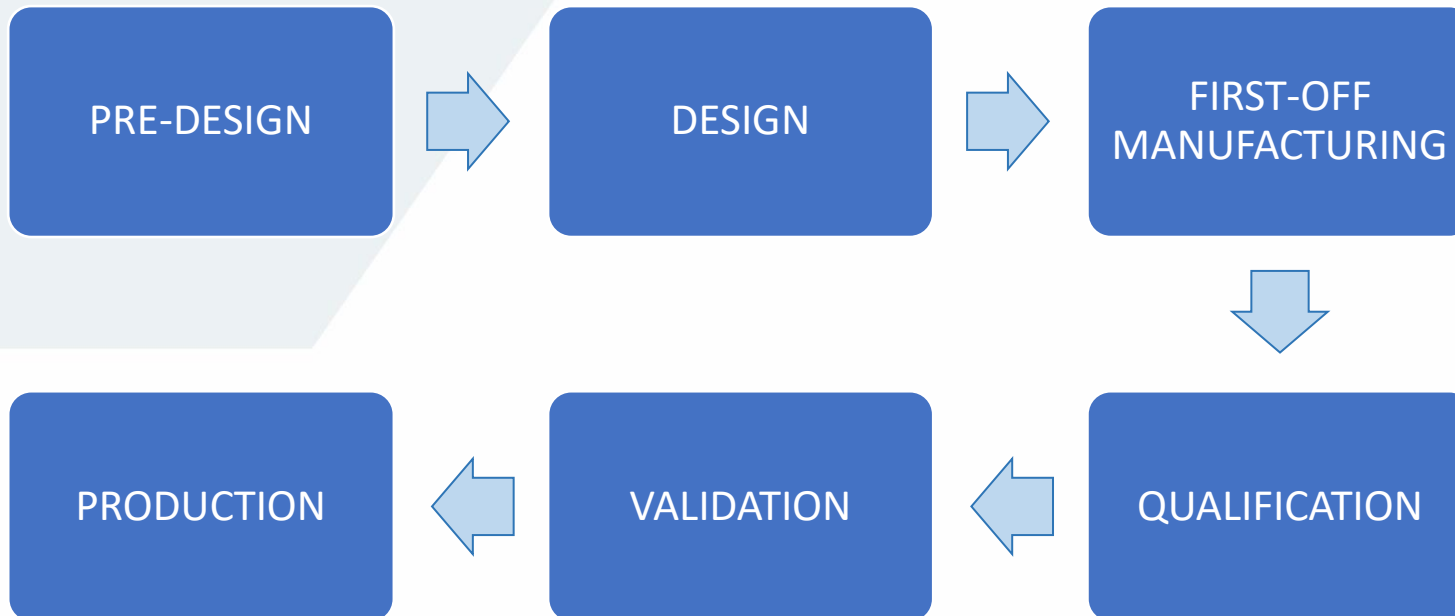
- Examples of Automated Test Equipment/Special to Type Test Equipment

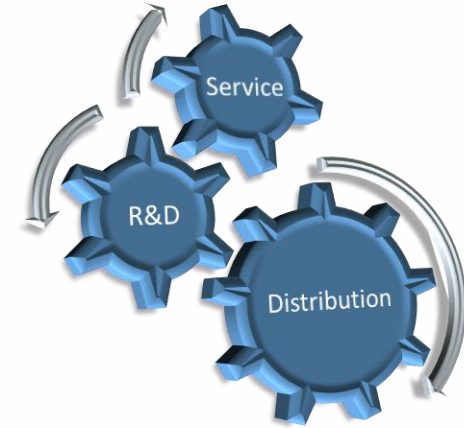
QUALITY IN MPG R&D BU

ISO 9100 Quality is above any direct and indirect activity of the R&D, such as:

- Procurement
- Suppliers management
- Items Stock
- Configuration Management

R&D Process Flow





COMPANY CAPABILITIES

Commercial & Distribution

Research & Development

Maintenance & Service



SERVICE & CALIBRATION

IN HOUSE Activities

- MPG Internal Laboratory (Senago Milan)
- Lab frequency range covered up to 26GHz
- EN9100 & AER-Q-2120 N° 745 AQAP-2120
- Certified Aeroflex Service Center for:
 - Communications PMR, TETRA & SDR
 - Avionics & C.N.I.
 - Test & Measurement
- European Certified Lab for Ultra Electronics 1553 DataBus and in progress 9719MK1 HYPPAG EFA Launch Simulator
- Certified Ideal Aerosmith Service Center



SERVICE & CALIBRATION

External activities w. Sister Companies

- Leonardo service on site
 - Scheduled maintenance
 - Military GPU
 - Static Converter Test & Measurement
 - 400Hz GPU – Rotary Motor Generator
 - Rotary vertical cable assembly





THANK YOU!

ROME



MADE IN ITALY



MILAN

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