

TOGETHER WE FLY HIGHER



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With 100 years of aviation experience OGMA is recognised throughout the aerospace industry for offering a wide range of services for defence, commercial and executive aviation.

Offering a wide range of solutions for defence, commercial and executive aviation.

# Knowing your needs. Exceeding expectations.

That's OGMA.



**400.000** m<sup>2</sup> **Overall Area** 

**3.000** m **Runway** 

11 Maintenance Hangars

1 Control Tower 150.000 m<sup>2</sup> Covered Facilities

**4.000**m<sup>2</sup> Painting Facility

1.200 m<sup>2</sup> Composites Clean Room

12 m long Automated Riveting Machine Flying with you since 1918.

Throughout its History OGMA has accumulated experience, which translates into top quality products and services.

Becoming one of the most important worldwide players in the Aviation Maintenance, Repair and Overhaul (MRO) and manufacturing businesses.

With 100 years of historical achievements since its creation on June 29<sup>th</sup>, 1918, OGMA has been keeping pace with the evolution of the industry.



#### Certifications

# A wide range of approvals

OGMA is an Authorised Maintenance Centre (AMC) for major manufacturers such as Embraer, Lockheed Martin and Rolls-Royce.

#### We design

OGMA is an EASA Part 21J approved Design Organisation (DOA ref. EASA Part 21J.304).

#### We Maintain

OGMA Maintenance Engineering, a team of experienced and dedicated engineers, provide Part 145 engineering and support services to our customers (ref PT.145.004).

#### **We Produce**

OGMA is an EASA Part 21G approved Production Organisation (POA ref PT.21G.0001).

#### We Support

OGMA is an EASA Part M subpart G and subpart I approved Continuing Airworthiness Management Organisation (CAMO ref-ANAC PT.MG.038).

#### **Shareholders**

# OGMA's Shareholders

OGMA has strategically linked with Embraer, one of the world's largest aircraft Manufactures. As a majority shareholder, Embraer has lifted OGMA into a position to provide the most comprehensive support to Embraer's products through our maintenance, modification and manufacturing services within the European Region.

Driven by customer satisfaction, we go beyond expectations, creating unique, high performance solutions based on more than 100 years of experience. Together we fly higher.



We are aware of what you find most important, whether it's punctuality, technical precision, proactive approach to safety, flexibility, environmental sustainability.

We have established this strong commitment to our Customers, Employees, Shareholders and Partners:

# To fly even higher.

# The values that make us fly.

#### Service Excellence

The satisfaction of every single Customer is our main focus. That means serving them as fast as possible, with the highest quality level and respect for safety and security.

#### Partnership

The best results are achieved through team work. We work in partnership with our Customers to offer the solutions that best fit their needs. Our Shareholders' satisfaction is also essential. Only with solid financial results can we boost the development and success of our company.

#### **Ethics**

Our company's success depends directly on the actions carried out by the people who constitute it. That means acting with honesty, justice, transparency and respect, appreciating every person individually and repudiating any sort of discrimination.

#### Flexibility

Knowing our Customers is the only way we can meet and anticipate their needs. Our technical capability and know-how allows us to offer tailor-made services and solutions.

#### Efficiency

We know that punctuality, trust, safety and adaptability are key customer requirements. Their objectives are also ours, which is why we put our experience at their service to guarantee their success and help them further in the business. We are committed to the best environmental practices, reducing waste and assuring the safety and health of our employees.

OGMA is powered by people who give their best effort everyday to achieve our main goal: to fully satisfy our Customers.

With more than 1.750 Employees, spread across several business and support areas, OGMA constantly seeks to strengthen its human resources capacity.

# People. Our most valuable asset.



#### **Worldwide Customers**

North America

ENGINES MRO MRO SERVICES AEROSTRUCTURES

> Latin America

ENGINES MRO MRO SERVICES AEROSTRUCTURES

# A Global Footprint

### Europe & CIS

ENGINES MRO MRO SERVICES AEROSTRUCTURES ENGINEERING CAMO

> Africa and Middle East

ENGINES MRO MRO SERVICES CAMO Asia/Pacific Region

MRO SERVICES ENGINES MRO







Our portfolio of special services is built on our experience and includes: all-around service, short turn-around times, mobile support teams for on-site repairs and many other special services.

- Commercial Aviation
- Defence Aviation
- Executive Aviation
- Engines
- Components
- Engineering

# **Commercial Aviation**

OGMA offers a wide range of highly efficient services.

#### We assure

Short Turn-Around Times
High quality standards
Integrated aircraft maintenance
Mobile team for AOG support



- Heavy Maintenance
- Line Maintenance
- Engine Services
- Fleet Management
- Engineering Solutions
- Landing Gear Overhaul and Repair
- Aircraft Painting
- Interior Refurbishment
- AOG Assistance Team
- Aircraft Leasing Support (In & Out)
- STC (Supplemental Type Certificate)
- Development including In-Flight Entertainment
- Complex Structural Repair
- Technical Representation
- Full Fleet Support
- Airworthiness Management (CAMO)



## **Embraer ERJ-145 Family**

OGMA became the first Embraer Authorised Service Center (EASC) in the world for the ERJ-135/140/145 aircraft types in 1998. Today we operate as an Embraer Owned Service Center (EOSC), supporting airframe and component maintenance and repair. We are also a Rolls-Royce Authorised Maintenance Centre (AMC) for the AE3007 engines.

As such, we can provide complete One-Stop-Shop service for the ERJ 145 aircraft family.

# **Embraer E1 Jets Family**

Embraer E1 Jets Family OGMA has been an Embraer Authorised Service Center (EASC) for the E170/175/190/195 aircraft types since the delivery of the first E-Jet to Europe in 2004.

# **Embraer E2 Jets Family**

OGMA is ready to support the first E2 deliveries, starting in 2018.





#### **Defence Aviation**

OGMA holds extensive experience in military aircraft MRO.

#### Cargo Aircraft Patrol Aircraft

#### **Capabilities**

- Aircraft Maintenance:BasicIntermediateDepot Level
- Avionics Upgrades
- Major Structural Repairs
- Aircraft Painting
- Field Work Teams
- Aircraft Recovery
- Logistic Support Worldwide
- Fleet Management
- Training
- Component Repair & Overhaul
- Engineering Services
- Performance Based Contracts
- Full Fleet Support
- Airworthiness Management (CAMO)

#### ISR/Fighter/ Trainer Helicopter

#### **Capabilities**

- Life Extension Programmes
- Structural Modifications
- Avionics Upgrades
- Aircraft Inspections
- Major Structural Repairs
- Aircraft Painting
- Field Work Teams
- Engineering Services
- Fleet Management



#### **Lockheed Martin** P-3 Orion

Since 1982 OGMA has been providing a wide range of maintenance services and upgrades to P-3 Orion/L-188 Electra Operators, worldwide. OGMA is able to provide full maintenance support for the airframe, engine, propeller and landing gear.

#### **Specific Services**

- -SDLM
- PDM
- -PMI
- Dimple
- Major Structural Repairs
- Replacement of Kapton Wiring
- Life Extension Programmes (LECIP)
- Structural Life Extension (SSI)
- Engine Support. In-house capability for:T56/501D engine (a Rolls-Royce AMC) QEC 54H60 series propellers
- Accessories and Components



#### **Airbus Defence & Space** C-295

OGMA has been designated as a C-295 service centre, and has gained extensive experience supporting the Portuguese Air Force.

#### **Specific Services**

- Scheduled Maintenance



## **Experience in** maintenance services

#### **Defence Aviation**

## Lockheed Martin F-16

OGMA proudly supports the F-16 aircraft, one of the most advanced fighters in the world. In addition to standard maintenance tasks, OGMA has experience performing some of the most complex upgrades, such as Falcon Up, Falcon Star and the MLU modification.

#### **Specific Services**

- Mid Life Upgrade Programme
- Falcon Up/Falcon Star Structural Modifications
- Pulsed Lean Line Maintenance
- Battle Damage Repairs
- Phase Inspections
- External Tanks Overhaul
- Stripping (including Media Blast) and Painting
- -Rewiring
- Aging Wiring Management and Replacement
- Engine Inlet Stripping and Painting

#### Embraer-312/314 Tucano/Super Tucano

OGMA is the MRO company selected by Embraer to provide in-house or on-site support to the Tucano/Super-Tucano aircraft, with solutions ranging from light maintenance checks to avionics upgrades and full fleet support.

#### **Specific Services**

- Cockpit/Avionics Upgrade Programmes
- Aircraft Painting and Lettering
- -Rewiring
- Field Team
- Technical Representatives





## **Embraer** ISR

With 100 years of experience in defense aviation, 20 years of experience on the ERJ-145 family, and the capability to support the airframe, components and engine, OGMA is the perfect partner to provide integrated services and support to the EMB ISR platform.



# Commitment to quality and service

## Leonardo EH-101

We provide Full In Service Support (FISS) in partnership with Leonardo.

#### **Specific Services**

- Scheduled Maintenance
- On-site Maintenance
- -Logistics Management
- -Engineering Design Repairs



#### Eurocopter SA330 Puma

#### **Specific Services**

- -P2/P4 Inspections
- Main Rotor Head and Tail Rotor transmission shaft
- Component Repair & Overhaul



# **Executive Aviation**

# Built to meet the special requirements of Executive Jet Operators.

OGMA Executive Jets Centre was built with a fully equipped hangar and upgraded back shops.

#### **Capabilities**

- Heavy Maintenance
- Line Maintenance
- Engine Services
- Fleet Management
- Engineering Solutions
- Landing Gear Overhaul & Repair
- Aircraft Painting
- Interior Repairs
- AOG Assistance Team
- Aircraft Leasing Support (In & Out)
- STC (Supplemental Type Certificate) Development and Special Modifications
- Complex Structural Repair
- Technical Representation
- Embraer Executive Care (EEC) Programme
- Warranty repairs
- Airworthiness Management (CAMO)





### Embraer Legacy 600/650

As an Integrated Service Station OGMA is also a Rolls-Royce AMC for AE3007 engines, a field support team provider and a key player in the Embraer Executive Care (EEC) Programme.

We were the first Embraer Authorised Service Centre (EASC) in Europe in 2002.

#### Embraer Lineage 1000

OGMA's team of highly experienced engineers have been supporting Embraer's VIP airliner for more than 10 years, recently adding its latest evolution, the Lineage 1000E, to our portfolio.

We have the capability to perform not only line and base maintenance but we can also modify, update and convert the Lineage according to operators and owners' specifications.





#### **Engines**

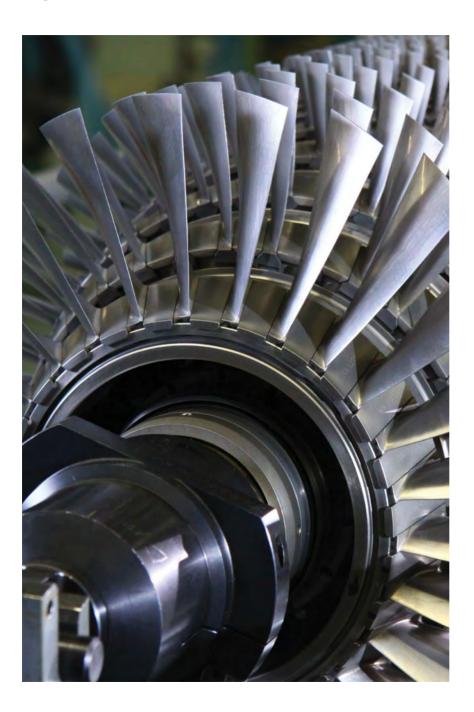
## OGMA is a Rolls-Royce Authorised Maintenance Centre.

Our highly qualified and dedicated technicians, supported by an experienced Engineering team, provide MRO Services for a wide range of aircraft engine models.

Strongly committed to exceeding our Customers' expectations, OGMA's goal is to achieve the optimal balance between performance, cost, ground and on-wing times.



#### **Engines**



#### Rolls-Royce T56/501D

OGMA's capability to overhaul T56/501D engines, engine modules, QEC, accessories and components upon C-130/L-100 and P-3 aircraft heavy maintenance checks, makes it a unique One-Stop-Shop facility.

# Certified Rolls-Royce AMC

#### Rolls-Royce AE 2100 Series

Starting with Rolls-Royce AE 2100 A Series powering the SAAB 2000 regional turbo-prop, OGMA became the only independent European AMC dedicated to these engines.

With the AE 2100D3 and AE 2100D2 powering C-130J Super Hercules and C-27J Spartan, OGMA is currently a front-runner, serving Rolls-Royce, airline Air Force Customers worldwide.

Since 1993, OGMA has been a certified Rolls-Royce AMC for the AE2100 engine series that powers advanced turboprop aircraft.

#### Rolls-Royce AE 3007 Series

OGMA has been repairing the AE3007A engines for civil and military operators worldwide, and is able to provide a full One-Stop-Shop capability to the Embraer ERJ-145 Family of aircraft.

OGMA has been an authorised Rolls-Royce Maintenance Centre (AMC) for the AE 3007 engine series since 1993, and is the only independent european MRO centre among worldwide AMC's forthis type of engine.





#### **Components**

# Accumulated know-how and experience.

OGMA's Component Shop has 50 years of experience supporting a wide array of systems, specialising in hydraulic and electromechanical components.

#### **Services**

- Technical Investigation and Support
- Inspection, Repair and Overhaul
- Engineering Support
- Logistics Support
- Exchange Pool

#### **Main Capabilities**

- Landing Gears
- Propellers
- Valve Housings & Pump Housings
- Brakes
- AC Generators

## OGMA provides a large capability list on electromechanical, hydraulic and pneumatic components.

With its extensive experience, OGMA is a well established player in the Component MRO activity, and has achieved a distinct market position in hydraulic and electromechanical components maintenance, with recognised expertise in C-130 and P-3 Propellers, Pump and Valve Housings, AC Generators, Landing Gears and Brakes.

As for the Hercules C-130/L-100, P-3 Orion, and Embraer ERJ-145 family, OGMA's repair & overhaul capabilities cover more than 80% of the components, which makes us a real One-Stop-Shop in the market.

As an Embraer owned company, we have been developing even further our component repair and maintenance capabilities on the Embraer platforms. As a result, we offer specific programmes for the commercial aviation such as ERJ-145 aircraft Main Landing Gear overhaul and fixed-price offers for the vast list of components that we repair, which can be tailored to each Customer's needs.

# A wide range of aircraft components MRO services

#### Components

Our specialised shops offer a wide range of Component MRO Services for different airplanes and helicopters.

We are proud of our capability to repair and overhaul most of the components installed on the aircraft we service.

## Five Specialised Shops

#### **Electrical**

- AC electrical generator
- DC power systems

## Dynamic & Mechanical

 Landing gears (ERJ-145, C-130, P-3, E170, E190)

#### **Propellers**

- Propellers (C-130, P-3)
- Pump housings (C-130, P-3)
- Valve housings (C-130, P-3)

## Hydraulic & Fuel Systems

- Brakes (A310/A320, ERJ-145, C-130)
- TDV (T-56)

#### **Avionics**

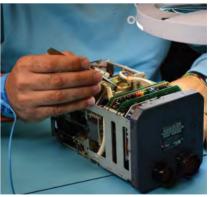
- Communications, navigation and radar
- Gyroscopes
- Oxygen regulators
- Safety equipment











#### **Painting**

# OGMA's state of the art painting facility is fully equipped

with the latest technology and design allowing us to assure cost competitiveness, technical precision, short turn-around times and all-around service.

#### **Capabilities**

- Aircraft and components painting, including customised designs and artwork
- Paint masks and labels manufacturing
- Aircraft washing
- Chemical or Mechanical Stripping
- Surface Treatment

\*(ISO 14001:2012; EN 9110:2015; ISO 9001:2008 and OHSAS 18001:2007)

## **4.000** m<sup>2</sup> Overall Area

**63**m **62,5**m **18**m wide long high

## 2 Independent Cabins

Servicing 2 different aircraft. One sized to a mid-sized aircraft (e.g. A321/KC-390) and one for small aircraft (e.g. F-16/EH101).

## **3** Components Painting Booths

One paint stripping booth. Two booths with paint force cure (≤ 60°C) which can operate together or independently.

## **Environmental Sustainability**

- Compliance with the most demanding environmental and occupational health and safety regulations\*
- Lighting 1 meter from the ground:
  1.000 Lux
- Air particles (≤ 10 μm)
- Down draft air flow
- Automatic waste collection

#### **Energy Optimisation**

- LED Lighting
- Solar panels for water heating
- Heat recovery from the painting booth facility with lower power consumption



#### **Engineering**

OGMA's experienced engineering offers a wide range of services.

#### Technical Support

OGMA provides customised engineering solutions and technical services that meet the highest standards of the aviation industry.

#### **Services**

- Implementation of new maintenance programmes, according to each specific operator's requirements
- Workscope evaluation and proposal
- Technical support for maintenance and modification activities
- Evaluation and definition of new repair procedures and processes
- -Issuing of technical documentation
- Technical fleet management, including reliability analysis and configuration management
- Customer Technical Support
- Technical Support for innovative mechanical technologies and materials (metallic and composites)
- Engineering Programme Technical Management
- Industrialisation Programme Technical Support
- Optimisation and standardisation processes
- Product configuration control
- Non-conformity analysis and corrective action implementation

#### Airworthiness Management

OGMA is an EASA Part M subpart G and subpart I approved Continuing Airworthiness Management Organisation (CAMO ref.PT.MG.038) and provides technical services that meet the highest standards of the aviation industry.

#### **Services**

- Aircraft Maintenance Programme development and approval management
- Reliability monitoring management
- Engine trend monitoring
- Scheduled Maintenance planning and management, for both line and base maintenance
- Airworthiness Directive analysis and planning
- Service Bulletin analysis and planning
- Component control and management
- Management of Change and Repair approval according to EASA Part 21 standards
- Airworthiness Records archive management
- Airworthiness Review Certificate (ARC) issue and management, and ARC recommendation
- Certificate of Airworthiness (CofA) issue or renewal support
- Aircraft registration/deregistration assistance
- Aircraft import, export and purchase support
- Pre-buy, mid-term and delivery/redelivery inspections
- Phase-in/Phase-out support
- Airworthiness Reviews for aircraft imported into the FU
- Aircraft return-to-service

#### **CAMO**

Aircraft types currently on our scope

#### **Embraer**

EMB-135/145

EMB-135

(Legacy) ERJ-170/175

ERJ-190/195

ERJ-190

(Lineage 1000)

#### Design

Leveraging on our experience, we can propose and adapt a wide range of solutions tailored to your requirements.

OGMA has the capability to carry out all types of aircraft modifications, including glass cockpits, interior conversions and galley equipment installation.

### Aircraft upgrade design and certification

OGMA offers integrated services for aircraft upgrades, including design, development, certification, modification kit supply, aircraft modification, technical publications update, training and operation support. OGMA is an EASA Part 21J approved design organisation (DOA ref. EASA.21J.304).

#### Specialised in

- Avionics upgrades
- Electrical generation and distribution system upgrades
- Cabin Interior upgrades
- Passenger in-flight entertainment and communications systems installations
- Electronic flight bag installations
- -Galley equipment installations

## These capabilities apply to commercial, executive and military aricraft, with the following objectives:

- Safety improvements
- Mission capability upgrades
- Implementation of mandatory ICAO/EASA /FAA requirements
- Management of obsolescence
- -Interior modernisation
- Fleet configuration standardisation

#### **Experience**

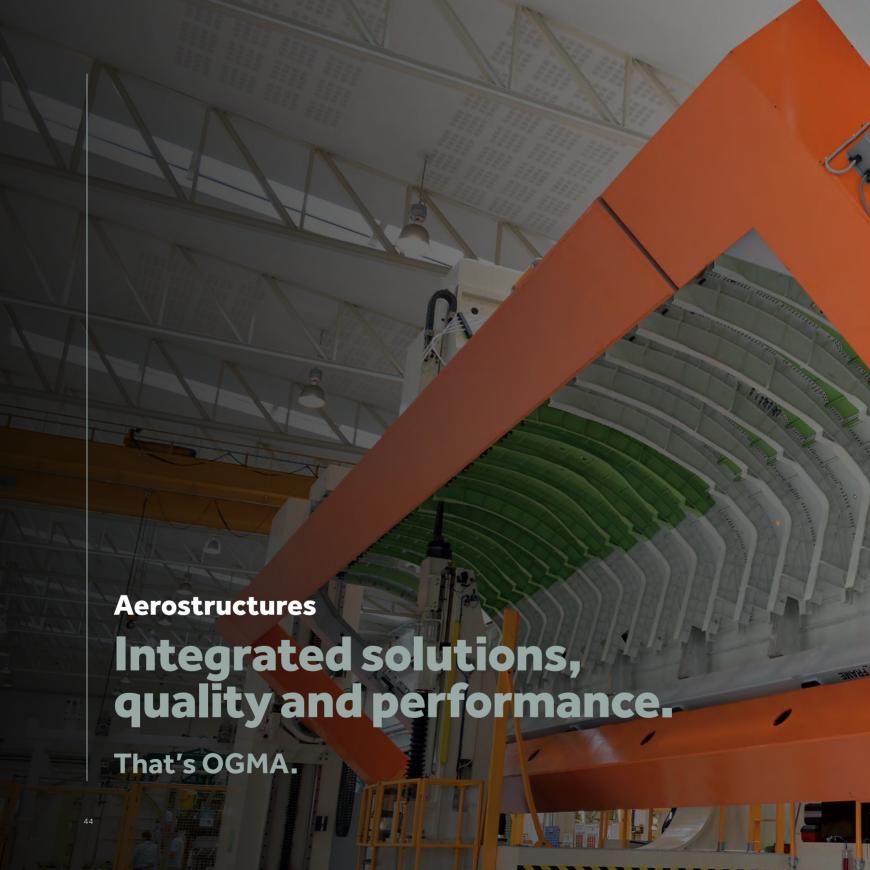
Our experience includes isolated or integrated upgrades or new installations of the following systems:

#### **Systems**

- Self-protection system
- Traffic Collision Avoidance System (TCAS II) / Mode S
- IFF Mode S
- Enhanced Ground Proximity Warning System (EGPWS)
- Weather Radar
- Integrated or standalone Global Position System (GPS)
- Flight Management System (FMS)
- Flight Data Recorder (FDR)
- Cockpit Voice Recorder (CVR)
- Emergency Locator Transmitter (ELT)
- VHF communications
- VOR/ILS navigation system
- DME navigation system
- ADF navigation system
- -Satphone
- Electrical generators
- Cabin reconfiguration
- Coffee maker
- Wardrobe
- Credenza
- Conference room

#### **Services**

- Customer requirements development support
- Modifications design and development
- Mechanical load analysis
- Static, fatigue and damage tolerance analysis
- Weight and balance analysis
- Aerodynamic impact of antenna installation
- Equipment cooling analysis
- Man-machine interface analysis
- -EMI/EMC analysis
- System safety assessment
- Electrical power distribution analysis
- Ground and flight tests
- Design approval (SICs and minor changes)
- Qualify the modification to Customer requirements
- Manufacture modification kit
- Service Bulletin issuance
- Aircraft modification
- Aircraft technical publications update
- MSG-3 maintenance programme update
- Operation and maintenance training
- Operational support







Committing to the
Aerostructures market for
over 30 years, OGMA is a major
supplier of integrated solutions
to OEMs and first tier suppliers.
We are proud to be involved
in some of the most demanding
aeronautics programmes.

Approved by EASA (European Aviation Safety Agency) as POA (Production Organisation Approval), Part 21, Sub-Part G, our technical competence, quality and performance allow us to deliver on time, low risk competitive solutions, sustaining long term relationships with a broad portfolio of major OEM's in the global aviation market.

We are proud to supply Embraer, Dassault, Airbus Defence & Space, Lockheed Martin, Pilatus Aircraft, Leonardo and Airbus Helicopters.

- Metallic & Composite Assemblies
- Composite Parts
- Machining
- Sheet Metal Forming
- Surface Treatments

## Production Segments

# Complete solutions for complex aircraft structures.

As a full service provider we are able to deliver Aerostructures assemblies and sub-assemblies, either from metallic or composite materials.





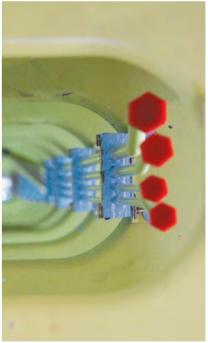
## Aircraft Assemblies

## **Composite Parts**

Machine and Sheet Metal Parts

System Integration







## Assembly Lines

- Assembly of large primary structures
- Up to 12 mts long
   Automatic Riveting Machine
- System integration
- Multiple Painting Booths

#### Composites

- Automatic pre-preg cutting with nesting
- Lay-up assisted by laser projectors
- Clean room with 1.200 m<sup>2</sup>
- 4 autoclaves (largest 11mts x 4mts diam.)
- 5 Axis CNC Trimming
- C-Scan and A-Scan inspection
- Dedicated Painting Booths

#### Machining

- Machining Centres
- 3D Dimensional Control

#### Sheet Metal

- Cutting:CNC Stack Router
- Forming:
   Hydro Forming
   Stretch Forming
   Forming
   Brake Press
- Welding:Spot WeldingFusionSeam
- Heat And Surface
   Treatments

#### Surface Treatment

- Multiple Painting Booth
- Hard Chromium
- Sulfuric Acid Anodising
- Chromic Acid Anodising
- Aluminum Chemical Conversion
- Titanium Anodising
- Cadmium Plating
- Cadmium Plating (Low Embrit.)
- Stainless Steel Passivation

#### Harness Shop

- Manufacturing
- Integration
- Laser Cable Marking

#### Tooling

- Design & Manufacturing

#### Non--Destructive Testing

#### **Programmes**

#### Commercial

Embraer E1-175/190/195 Embraer E2-175/190/195

- Fuselage
- Wings
- Doors
- Fairings
- Pylons

#### Executive

Dassault Falcon 2000
Dassault Falcon 8X
Embraer Legacy
Embraer Phenom
Pilatus PC-12

- Fuselage
- Wings
- Pylons
- Engine Inlet duct
- System Integration
- Fairings

#### Military Transport Aviation

Airbus Military C-295 Embraer KC-390 Lockheed Martin C-130J

- Fuselage
- Sponsons
- Elevators
- Wing Trailing Edge Panels
- Nacelle Cowls
- System Integration

#### Rotorcraft

AIRBUS Helicopters AS365 Leonardo AW-101 NHI NH-90

- Fuselage
- Interior Panels
- Rear Ramp and Hatch



#### Contacts

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