





## WHERE?



## Piemonte - Sommariva del Bosco







#### **COMPANY PROFILE**

ALFA MECCANICA Ltd is a private Company with over **45 years of heritage in the Aerospace Business**.

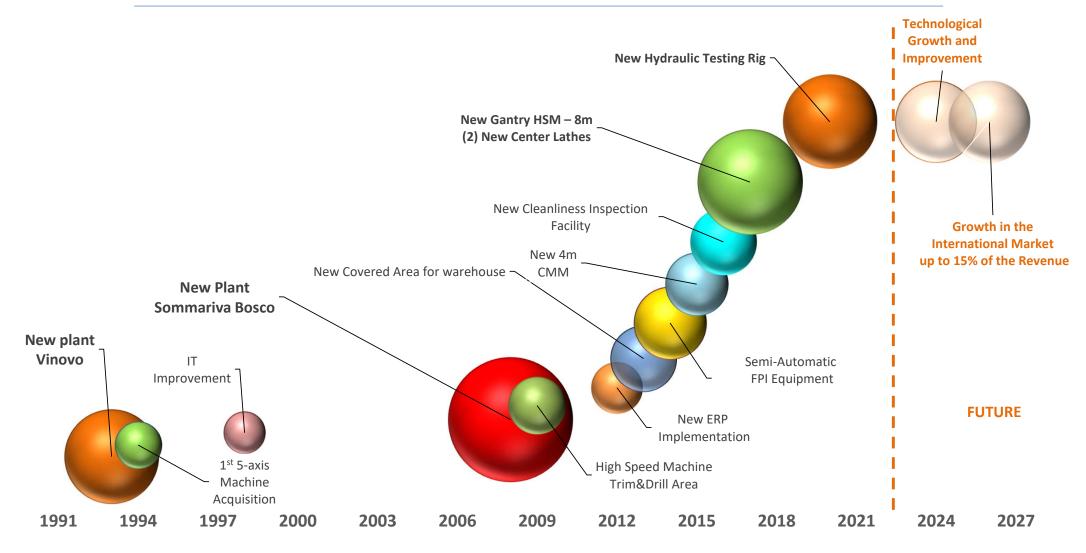
Founded by Mr. Pietro Alasia (the actual President) in **1975**, ALFA MECCANICA has been specialized since the beginning in **High Precision Mechanical Machining** for the Aerospace Industry, participating both in Military and in Commercial programs.

The company has grown during the years, following the growth of Aerospace Industry.

Today the second generation of the Family is leading the Company.

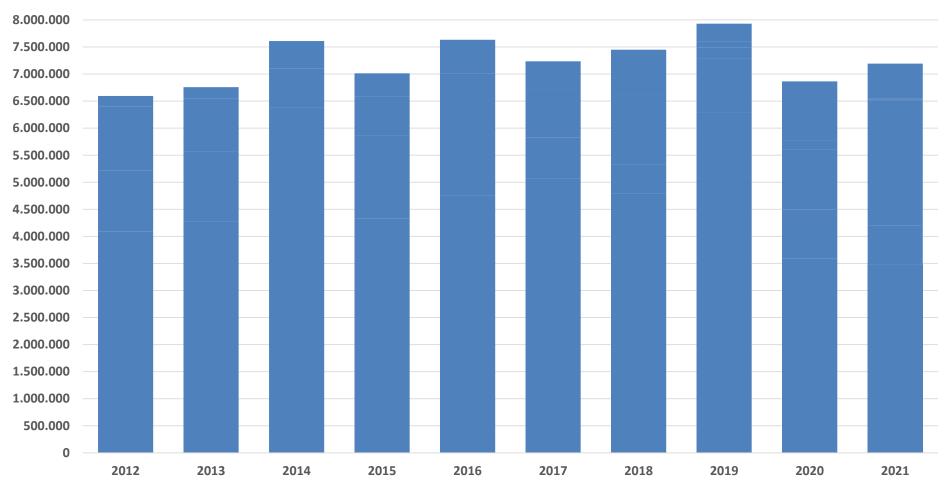
The ALFA MECCANICA Team is composed by **50 employees** working in about 5,500 sqm facilities.







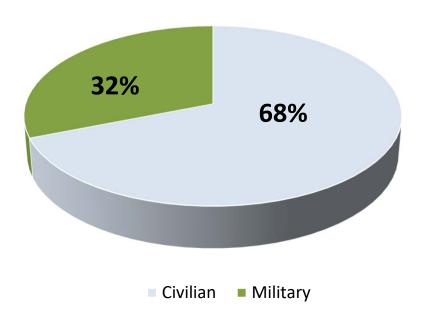
#### **YEARLY REVENUE (EURO)**



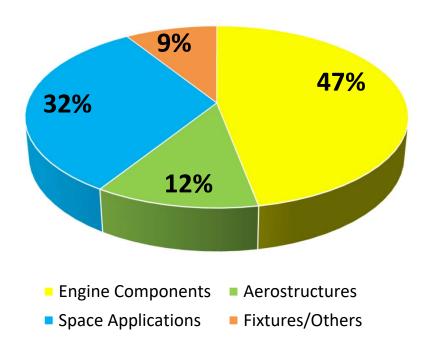


#### **BUSINESS SHARES 2021**

#### **Civil Vs Military Business share**



#### **Business Areas Share (%)**





#### THE BUSINESS STRATEGY





#### **ALFA MECCANICA – PRODUCTS AND ACTIVITIES**









PROPULSION
AND
ENGINE
SUBASSEMBLIES

AEROSTRUCTURES SUBASSEMBLIES AND COMPONENTS

STRUCTURES AND COMPONENTS FOR SPACE APPLICATIONS

DESIGN AND
MANUFACTURING



#### **PRODUCTS GALLERY**

#### **Propulsion and Engine Components**















#### **Aerostructures Subassemblies and Subcomponents**















#### **Components for Space Applications**





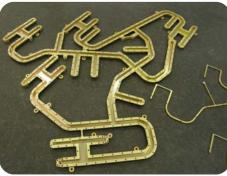












#### Jigs & Fixtures: Design and Manufacturing (see the dedicated presentation)

















#### **HOW WE MANUFACTURE OUR PRODUCTS?**

#### **ORDER**

- Order Analysis
- Tech.Package & Requirements flowdown
- Risk Analysis

#### NPI

- Concurrent Engineering (NPI)
- Manufacturing Engineering
- FAI

#### **PRODUCTION**

- Planning
- Manufacturing
- Special Processes
- Assembly

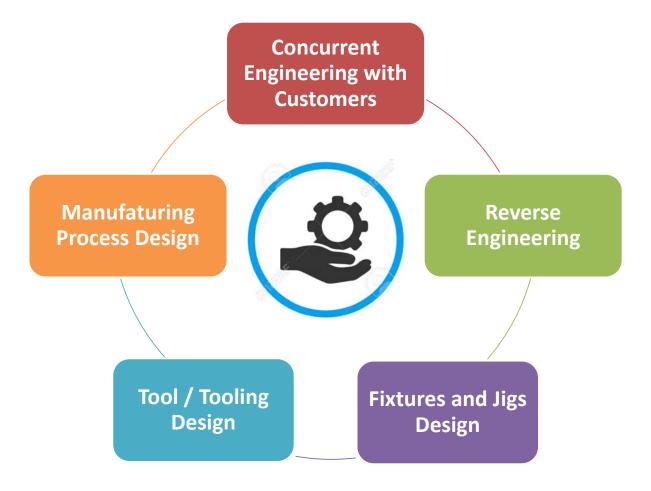
#### **QUALITY&Controls**

- NDT
- Quality Inspection
- Functional Testing
- Precision Cleaning and Cleanliness Inspection

ALFA MECCANICA takes the responsibility of the **FULL Manufacturing Process**, including **Non Destructive Tests** and several **Special Processes** performed by properly selected, certified and Qualified Suppliers.



#### THE ENGINEERING



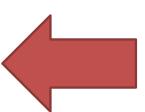


#### MANUFACTURING CAPABILITY

ALFA MECCANICA carries out internally the following main processes for the Aerospace Industry:

- **3-4** axis CNC **Milling** (up to 4050 x 2500 x 1000mm)
- **5** axis CNC **Milling** (up to 4000 x 1200 x 1600mm)
- ► Big Size 5 axis HSM Gantry Milling (up to 8000 x 3500 x 1400)
- CNC Center Turning and Multi Axis Turning (D. 660 x 1585mm)
- Electrical Discharge Machining (die sinking and wire cutting)
- Manual GTA Welding
- Unit Assembling stations and functional testing





## **Mechanical Machining: Technology**













## Big Size 5 axis: HSM GTF3514/QA 8000





Dimensions	mm
X	8 000
Υ	3 500
Z	1 400

Spindle features		
Туре	HSK63	
Speed	24K rpm	
Power	55 kW	



## **Metrological Room**



CMM POLI SKY 8: 2000x1200x600 mm





CMM DEA: 4000x2000x1500 mm



## F.P.I. Equipment

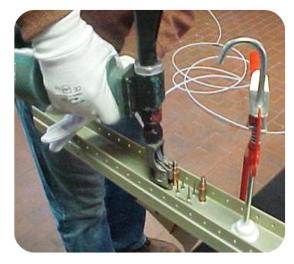


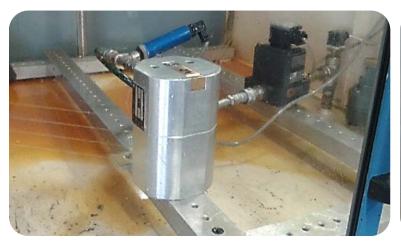
**Semi Automatic System for Fluorescent Penetrating Inspection** 



## **Assembly and Functional Testing**











## **Hydraulic Testing**





Main features	
Max T	90 (°C)
Max Flow	35 (I/min)
Max pressure	30 (bar)
Oil jet testing	flow, pressure, target





## **Precision Cleaning and Cleanliness Inspection (per GE P4TF21)**









**GE Aviation**Qualified



#### **International Certifications**



CERTIFICATO N.
CERTIFICATE No.

AS/122/15/S

SI CERTIFICA CHE IL SISTEMA DI GESTIONE PER LA QUALITÀ DI IT IS HEREBY CERTIFIED THAT THE QUALITY MANAGEMENT SYSTEM OF

ALFA MECCANICA S.R.L.

NELLE SEGUENTI UNITÀ OPERATIVE / IN 71-1E FOLLOWING OPERATIONAL UNITS

VIA G. AGNELLI, 3 12048 SOMMARIVA DEL BOSCO (CN) ITALIA

Par i requisti della notina no applicabili al campo di applicabili del sistema di gestioni dell'organizzazione, riferinsi alli informazioni documentate relativa

Reference is to be made to it relevant documented informatic for the requirements of it standard that cannot be applied the Organization's management

È CONFORME ALLA NORMA / IS IN COMPLIANCE WITH THE STANDARD

#### AS9100D / EN 9100:2018

E VALUTATO SECONDO LE PRESCRIZIONI DELLA NORMA EN 9104-001-2013 E DEL REQUIAMENTO TECNICO ACCREDIA RT-18
ASSESSED ACCORDINO TO EN 9104-001-2013 STANDAND AND TO THE REQUIREMENTS OF ACCREDIA TECNICICAL REQUIATION RT-18
PER I SEGUIRITI CAMPIO IL ATTUTTA / A POR THE POLI LOMBA DE REI DISI DE ACTUTTES

PRODUZIONE DI COMPONENTI E SOTTOASSIEMI MECCANICI ATTRAVERSO LAVORAZIONI MECCANICHE DI PRECISIONE. PROGETTAZIONE E PRODUZIONE DI ATTREZZATURE.

PRODUCTION OF MECHANICAL COMPONENTS AND SUB-ASSEMBLIES BY PRECISION MECHANICAL MACHINING. DESIGN AND PRODUCTION OF EQUIPMENTS.

a varietie del presente certificato e subordina: a la scriegi tanza per de calannuata / semestrate ed ai riesame compreto de lastama di gestione con per de cità trionnal.
The validity of this certificate is decendent on an annuali / six monthly audit and on a complete review, every three years, of the management system.

uso a la validità del presente certificato sono soggetti al rispetto dei documento RNA. Regolamento per la Certificazione di Sistemi di Gestione per la Qualità nel setti aerespecia e settindo lo schema EN 0100

 Prima emissione
 Data scadenza

 First Issue
 19.10.2015
 Expiry Date
 18.10.2024

teta di revisione

16.10.2024

Data di revisione Reissue date 18.10.20

21\_\_\_

Data entrata in vigore Issue date

19.10.2021

SC Schema di Conficenzioni SA Senore Pazziale

ACCREDIA
SIGNAL SILVANIA SILVA





ISO 9001:2015

QUALITY MANAGEMENT SYSTEMS

EN 9100:2018

AEROSPACE SERIES QUALITY MANAGEMENT SYSTEMS - REQUIREMENTS



#### **International Certifications**

Madcap This certificate is granted and awarded by the authority of the Nadcap Management Council to: ALFA MECCANICA Srl VIA G.AGNELLI 3 SOMMARIVA DEL BOSCO, 12048 Italy This certificate demonstrates conformance and recognition of accreditation for specific services, as listed in www.eAuditNet.com on the Qualified Manufacturers List (QML), to the revision in effect at the time of the audit for: NonDestructive Testing Certificate Number: 12180199035 Expiration Date: 31 May 2023 **Jay Solomond** Accreditation Length: 24 Months Executive Vice President & Chief Operating Officer Noria Performance Review Institute (PRI) | 161 Thorn Hill Road | Warrendale, PA 15086-7527





## Rolls-Royce APPROVALS

#### Scope:

- Precision Machining
- Control of classified parts to RRES 90000
- Cleaning and descaling
- NDT & Inspection Methods

RR Aerospace UK

Approval N° 122990
Expiry date: unlimited

Vendor n° assigned: 234741

RR Deutschland

**Approval N° 122990/1** 

Expiry date: unlimited

Vendor n° assigned: 234741



#### **MAIN PROGRAMS**



# **TRANSMISSION** ENGINE

- EJ200 • GENX • GE90
- GE9X
- CATALYST
- CFM Leap
- Ultra Fan
- Trent 900
- SAM146
- PW2037
- PW800
- PW1100
- TP400
- V2500



## AIRCRAF

- Eurofighter Typhoon
- Boeing 767
- C27J Spartan
- Falcon 2000
- F5X
- M346
- A350
- A320
- JSF F35
- AKOYA



- Cygnus
- ATV
- Node 2 & 3
- GALILEO
- Global Star
- Cosmo
- Amazonas
- O3B
- Cupola
- IRIDIUM
- Biomass
- MPCV (Orion)
- Space Rider
- Halo
- Axiom



#### **MAIN CUSTOMERS**

























#### CONCLUSION

- ALFA MECCANICA is specialized in High Precision Machining and works since 1975 with the most important International Players of the Aerospace Industry, both Civil and Military Programs
- **Experience, Know how, Professionalism, Technology** and first class machinery are the means which lead ALFA MECCANICA to achieve the requests of Aerospace and several other branches of Industries
- The very slim organization is warranty of flexibility, quick reactions and reliability
- The **Engineering Department** is in charge of the Industrialization Process and it's warranty of a **very strict** industrialization Lead Time
- The Quality of ALFA MECCANICA products and services is assured by a Certified Quality System Management according to ISO 9001:2015 and EN 9100:2018 Norms.









## Many thanks for your Attention!

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