

## COMPANY

The company was born in 1972 as an individual firm founded by Gianluigi Merletti and his wife Narcisa. In 1995 it welcomed their son Ruggero and their daughter Sabrina in the team.

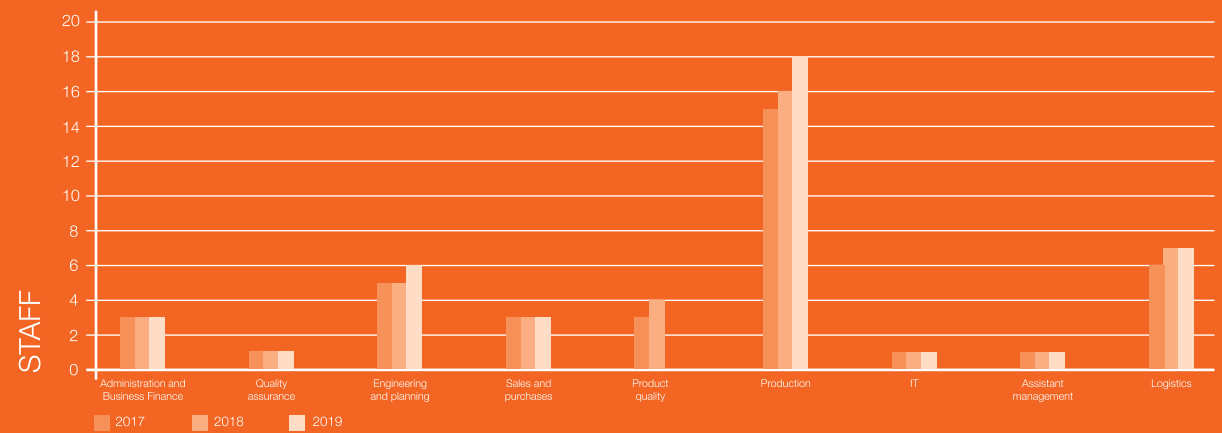
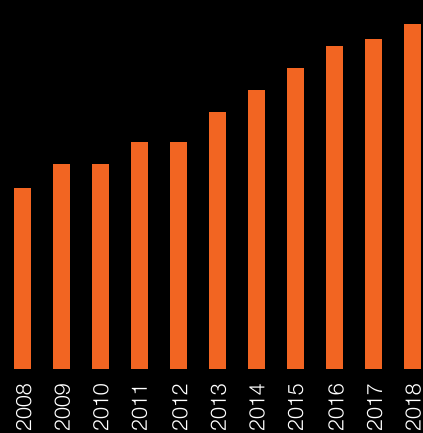
Highly developed in precision mechanics, the core of its production, the company is particularly skilled today in the aerospace field with a wide set of activities ranging from planning to construction.

Since 1995 it's qualified as an UNI EN ISO 9001 certified operator and since 2006 as an UNI EN 9100 certified operator and since 2018 as EASA PART 21 G ENAC approved.

Merletti srl is also a member of Lombardia Aerospace Cluster and member of AIAD (Italian Federation of Industries for aerospace, Defence and Security).

Equipped with a high level of technological know-how in every field of precision machining it offers maximum planning flexibility along with top-quality standards.

## HUMAN RESOURCES 2008 - 2018



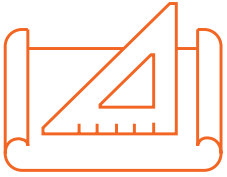
AIRPLANE

HELICOPTER

DEFENCE

	m <sup>2</sup>	ft <sup>2</sup>
Production line:	2.000	21.527
Offices:	300	3.229
Photovoltaic plan (150 kW)	2.000	21.527
Total area:	4.300	46.283
Available for future investment:	1.500	16.145

# Full Vertical integration



## DESIGN

- tooling project
- concurrent engineering



## INSPECTION

- dimensional inspection
- chemical analysis
- ultrasonic inspection
- fluorescent penetrant inspection



## ENGINEERING AND PLANNING

### Engineering

- digital manufacturing stations
- 2D and 3D cad/cam systems + Catia V5

### Planning

- ERP software and personalized MRP application (NAV2013 + Zucchetti)



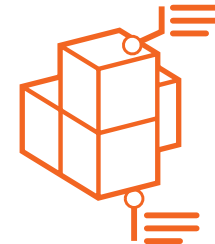
## SURFACE TREATMENTS

- pre-treatments
- surface (galvanic)
- auxiliary and painting



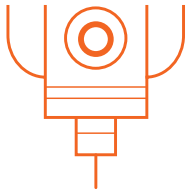
## PURCHASE

- Supply chain management



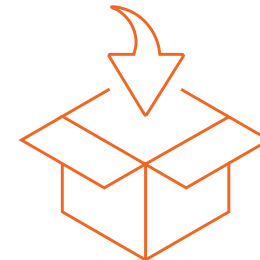
## ASSEMBLY AND TESTING

- full vertical integration of subassemblies
- hot and cold bearings/bushings mounting
- proof loading test



## PRODUCTION

- machining (milling, turning, lapping and grinding) up to:  
↔ 6000 mm  
Ø 3000 mm



## PACKAGING AND DELIVERY

# MILLING

The milling department is equipped with 3, 4 and 5 axis horizontal and vertical machining centers up to 6000 mm.



## MAX. CAPACITY (MM)

1 Breton Matrix center - 5 axis Vacuum system integrated	6000 x 3000 x 1000
1 Donau drilling center - 4 axis 3 Tables	ø 3000 x 1600
5 DMG centers - 5 axis Vacuum clamping system	1800 x 1300 x 1000
2 Maho centers - 4 axis Pallet Exchange	1600 x 1200 x 750
1 Spindle center - 4 axis Inconel - titanium	1200 x 500 x 520
1 Seiki center - 3/4 axis	750 x 500 x 500



## TURNING AND MULTITASKING

### MAX. CAPACITY (MM)

4 CNC lathes	ø 850 x 2000
1 Mori Seiki NT4250 multitasking center	ø 600 x 1540
1 MAZAK INTEGREX i200 - SmoothX	ø 650 x 1580

## Traditional machining

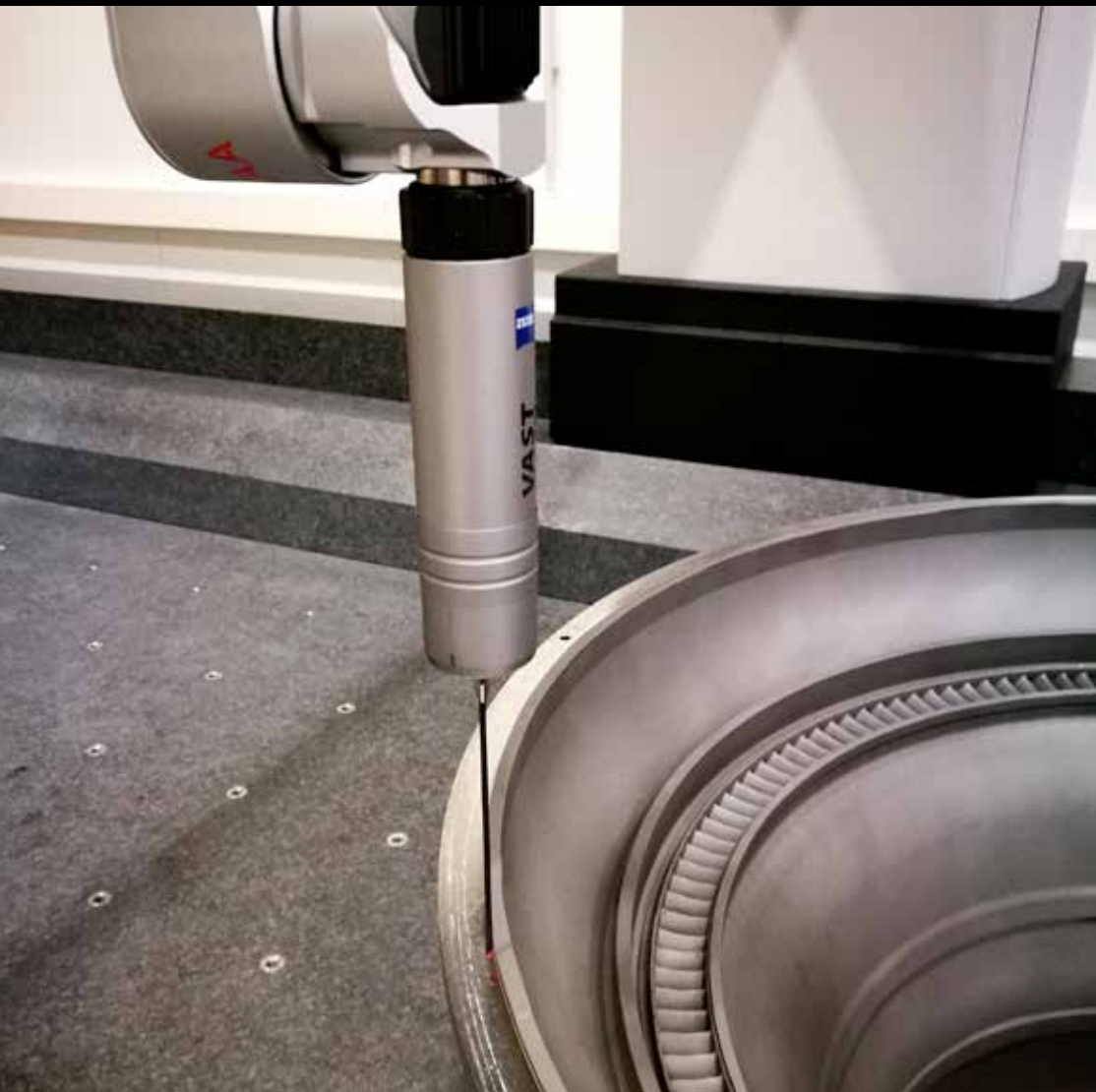
The department is also equipped with traditional machines (modified for specific applications, when required) in order to support the entire production.

Milling, turning, lapping, grinding inside-out, tangential grinding, centerless grinding, rolling, slotting, drilling, high speed sensitive drilling up to 20.000 rev/min, welding, pressing the shears.



# INSPECTION

All inspections are performed at a room controlled temperature of 20°C / 68°F



---

## **Dimensional**

With 3d coordinate measuring machines up to (mm):

x-axis: 1600

y-axis: 4200

z-axis: 1000

---

## **Profiles**

With optical machines and profilometer

---

## **Hardness tests**

Rockwell, Brinell, Vickers

---



# ASSEMBLY, FLY KITS AND GSE

---

Precision assembly and subassembly

---

Hot and cold bearings and bushings installation

---

Fly kit and Ground Support Equipment

---



# SURFACE TREATMENTS AND PAINTING



## Surface (galvanic)

- chromic acid anodizing
- sulfuric acid anodizing
- sulfuric hard anodizing
- chemical conversion coating (Alodine 1200s)
- stainless steel passivation

---

## Pre-treatments

- degreasing and etching

 **Nadcap** NADCAP approved processes

 **merletti<sup>®</sup>**  
aerospace



## Auxiliary

- sandblasting (Coridone 180 mesh)
- primer and top coat application
- solid lubricants application
- painting (3 rooms of 6m each)

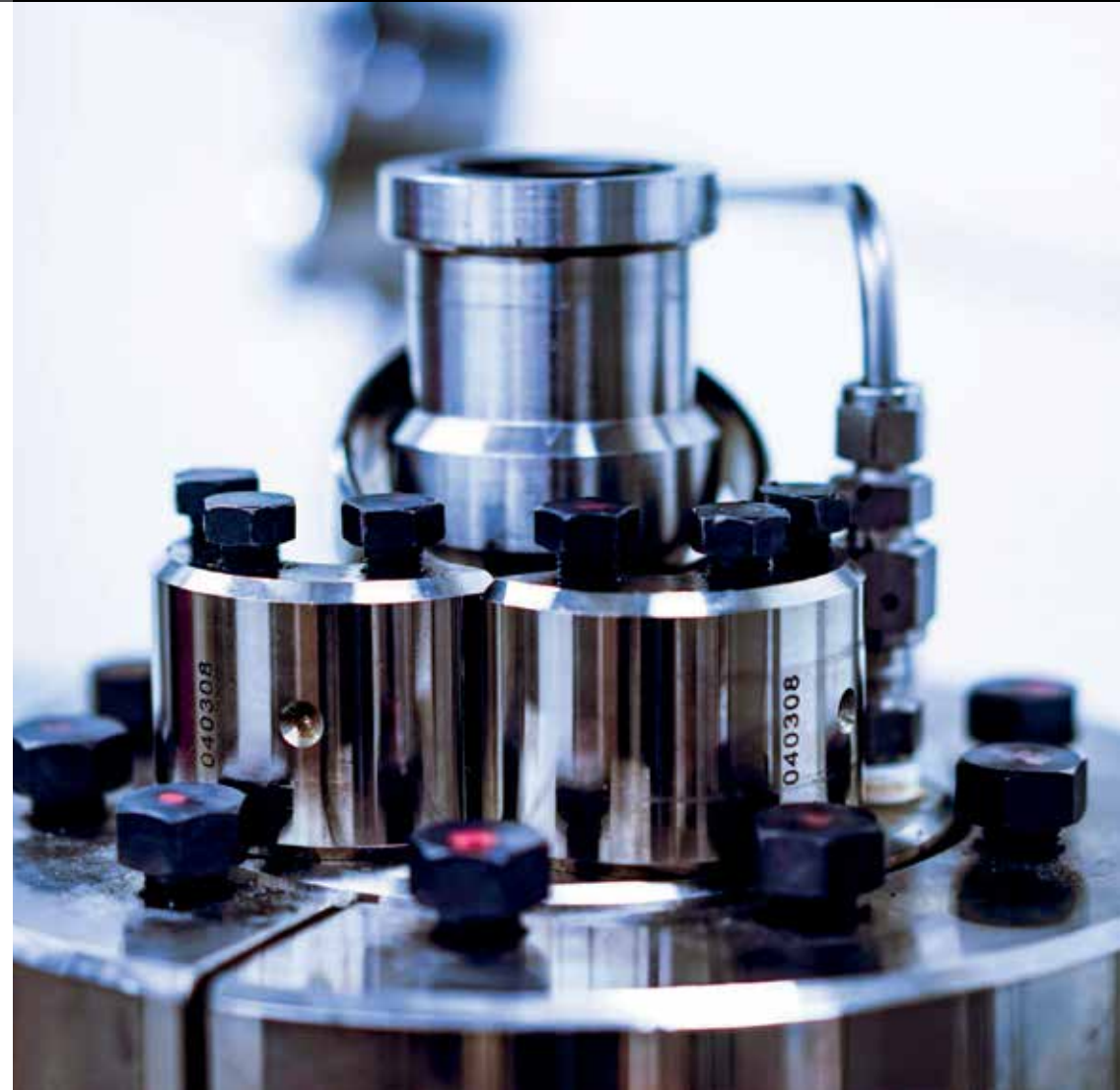


## Tanks size:

↔ 2.800 x 1.000 x ↕ 600mm

↔ 6.6 x 3.3 x ↕ 2 ft

Internal laboratory for chemical analysis and coating tests



# CUSTOMERS



Leonardo



SABCA



Ogma



Patria

**Patria**

Avio Aero



GE Aviation Czech



GF Precicast

**+GF+** PRECICAST

F1 racing teams





## Civil Programs

Airbus A319  
Airbus A320  
Airbus A321  
Airbus A330  
Airbus A350  
Airbus A380  
AW 101  
AW 109  
AW 119 Koala  
AW 139  
AW 169  
AW 189  
Dassault Falcon F5X  
Dassault Falcon F7X  
Embraer 175  
SSJ100

## Military Programs

Airbus 400M  
AW 101  
AW 109  
AW 139  
CH 47  
Embraer KC390  
Eurofighter Typhoon  
F35  
M346  
MB339  
NH90  
Saab 2000 Erieye AEW&C  
T129 ATAK

## Aircraft engine

PW1100  
PW4000  
GEnx  
H75  
H80  
H85  
Trent 1000

## Member of



CONFINDUSTRIA



# CONTACTS

---



aerospace@meccanicamerletti.it



<http://meccanicamerletti.it>



Via Giosuè Carducci, 8  
21010 Arsago Seprio VA (Italy)



+39 0331 769577



+39 0331 768414

