Company Profile

2024

Who we are

CALEFFI MODENA build complex components, made by structural steels, light aluminum and titanium alloys, performing mechanical milling and turning operations with continuous 5-axis numerical control machines, managed by CAM systems.

Who we are

CALEFFI MODENA, through the Design Service, establishes a technical partnership with the customer, to solve production design and industrialization problems, guaranteed by the destructive and non-destructive tests and controls function, to minimize production lead time and to accelerate production time-to-market of prototypes and small series.

Who we are

Due to its technical know-how and a highly tested subcontracting network, CALEFFI MODENA is able to act as prime contractor to produce special items, whose production cycle includes heat treatments, chemical and surface treatments, castings, 3D printing, and includes a possibility of assembly or pre-assembly services.

CALEFFI MODENA is able to offer reverse engineering services for spare parts from existing components, even if not in perfect condition, or in the absence of original drawings.

Where

Our production unit is located in Modena (Italy), in the hearth of Italian Motor Valley

Where


EMILIA ROMAGNA
VIA EMILIA
MOTOR VALLEY
PIACENZA
PARMA
REGGIO EMILIA
MODENA
FERRARA
BOLOGNA
RAVENNA
FORLÌ
CESENA
RIMINI
MARE ADRIATICO
MODENA
Maserati
Autodromo di Modena
Museo Enzo Ferrari
Umberto Panini Motor Museum
Museo dell'Auto Storica Stanguellini
FUNO DI ARGELATO
Museo Ferruccio Lamborghini
BORGO PANIGALE
Ducati Motor Holding
Museo Ducati
PIACENZA
AF Corse
VARANO DE' MELEGARI
Dallara
Autodromo Riccardo Paletti
Dorado Centro Guida Andrea de Adamich
REGGIO EMILIA
Bani Sport
S. CESARIO SUL PANARO
Pagani Automobili
Museo Pagani e Fabbrica from 17 July
MARANELLO
Ferrari
Museo Ferrari
S. AGATA BOLOGNESE
Automobili Lamborghini
Museo Automobili Lamborghini
IMOLA
Museo Checco Costa
Autodromo Internazionale Enzo e Dino Ferrari
LUGO
Museo Francesco Baracca
RIMINI
Bimota / Alternativa Moto
MISANO ADRIATICO
Autodromo Internazionale Marco Simoncelli
CORIANO
Museo "La Storia do Sic"
MAP LEGEND
Car producers
Bike producers
Museums / Collections
Circuits
SS9 VIA EMILIA
Check on
motorvalley.it
for private collections

Where

Operation facility

37X53 = 2.500 square meters

Photovoltaic panels

on the roof

Workshop

Air conditioning

(ceiling cooling

and underfloor heating)

Workshop

Machine List

Il parco macchine consiste di:

13 - 5 axis CNC with dimensions of 800mm on x/y/z

3 – Vertical CNC with dimensions up to 1.020 x / 560 y / 600 z

5 – Lathe, 4 of them with y axis, and chuck diameter of 250mm with x lenght up to 1.000mm, with bar loader

Manual machines

Machine shop

No.	BRAND	MODEL	TRAVEL AXIS (MM)	TECHNICAL SPECIFICATIONS
1	DMGMORI	DMU50 + PH150/8	Travel on X axis 650 mm Travel on Y axis 520 mm Travel on Z axis 475 mm	CNC HEIDENHAIN TNC 640i with continuous 5 axes positioning with linear motor on X axis and angle of working up to 108° Automatic handling pallet Erowa PH150/8 3D Heidenhain Touching probe TS649 Electric spindle speed: 18.000 round/min Drive power 28KW Rapid traverse on x, y, z axis: speed=42 m/min Tool Magazine n°120 tools with double rapid clamping pinch Blum Laser brake tool control
1	DMGMORI	DMU75 Monoblock	Travel on X axis 750 mm Travel on Y axis 650 mm Travel on Z axis 560 mm	CNC HEIDENHAIN TNC 640 with continuous 5 axes positioning 3D Heidenhain Touching probe TS649 Electric spindle speed: 18.000 round/min Drive power 35KW Rapid traverse on x, y, z axis: speed=40 m/min Tool Magazine n°60 tools with double rapid clamping pinch Blum Laser brake tool control
1	GF	HEM500	Travel on X axis 500 mm Travel on Y axis 450 mm Travel on Z axis 400 mm	CNC HEIDENHAIN TNC 530i with continuous 5 axes positioning -65 /+110 A axis WorkPal System 3R Dynafix Renishaw Touching probe 40,01-Mini Electric spindle speed: 20.000 round/min Drive power 20KW Rapid traverse on x, y, z axis: speed=30 m/min Tool Magazine n°60 tools with double rapid clamping pinch Blum Laser brake tool control

Machine shop

No.	BRAND	MODEL	TRAVEL AXIS (MM)	TECHNICAL SPECIFICATIONS
5	DMGMORI	DMU50EVO Linear	Travel on X axis 500 mm Travel on Y axis 450 mm Travel on Z axis 400 mm	CNC HEIDENHAIN TNC 530i with continuous 5 axes positioning with linear motor on X axis and angle of working up to 108° 3D Heidenhain Touching probe TS641 Electric spindle speed: 18.000 round/min Drive power 28KW Rapid traverse on x axis: speed=80 m/min ac=10 m/s2 Rapid traverse on y and z axis: speed=50 m/min ac=10 m/s2 Tool Magazine n°60 tools with double rapid clamping pinch Blum Laser brake tool control
1	DMGMORI	DMU80P Duoblock	Travel on X axis 800 mm Travel on Y axis 800 mm Travel on Z axis 800 mm	CNC HEIDENHAIN TNC 530i with continuous 5 axes positioning 3D Heidenhain Touching probe TS641 Electric spindle speed: 18.000 round/min Drive power 28KW NC-controlled swivel milling head 0-190 degrees NC-controlled rotary table Ø900 x 700 Rapid traverse on x, y, z axis: speed=60 m/min ac=10 m/s2 Tool Magazine n°120 tools with double rapid clamping pinch Coolant through the spindle core with 40Bar pressure Blum Laser brake tool control
1	DMGMORI	DMC65 Monoblock	Travel on X axis 650 mm Travel on Y axis 650 mm Travel on Z axis 560 mm	CNC HEIDENHAIN TNC 530i with continuous 5 axes positioning 3D Heidenhain Touching probe TS649 Electric spindle speed: 18.000 round/min Drive power 28KW Rapid traverse on x axis: speed=80 m/min ac=10 m/s2 Rapid traverse on y and z axis: speed=50 m/min ac=10 m/s2 Tool Magazine n°90 tools with double rapid clamping pinch 3 handling pallets 500x500 mm Blum Laser brake tool control

Machine shop

No.	BRAND	MODEL	TRAVEL AXIS (MM)	TECHNICAL SPECIFICATIONS
1	GF	HEM700	Travel on X axis 700 mm Travel on Y axis 450 mm Travel on Z axis 400 mm	CNC HEIDENHAIN TNC 530i with continuous 5 axes positioning -65 /+110 A axis WorkPal System 3R Dynafix Renishaw Touching probe 40,01-Mini Electric spindle speed: 20.000 round/min Drive power 20KW Rapid traverse on x, y, z axis: speed=30 m/min Tool Magazine n°120 tools with double rapid clamping pinch Blum Laser brake tool control
1	GF	HEM800	Travel on X axis 800 mm Travel on Y axis 700 mm Travel on Z axis 550 mm	CNC HEIDENHAIN TNC 530i with continuous 5 axes positioning -65 /+110 A axis WorkPal System 3R Dynafix Renishaw Touching probe 40,01-Mini Electric spindle speed: 20.000 round/min Drive power 20KW Rapid traverse on x, y, z axis: speed=30 m/min Tool Magazine n°120 tools with double rapid clamping pinch Blum Laser brake tool control

Machine shop

No.	BRAND	MODEL	TRAVEL AXIS (MM)	TECHNICAL SPECIFICATIONS
1	DMGMORI	DMU80T	Travel on X axis 880 mm Travel on Y axis 630 mm Travel on Z axis 630 mm	CNC HEIDENHAIN TNC 530i with continuous 5 axes positioning Tool clamping head traverse CN 103° with digital moving system and upper CN table; 3D Heidenhain Touching probe TS640 Electric spindle speed: 18.000 round/min Drive power 28KW Rapid traverse: speed=30 m/min ac=8 m/s2 Tool Magazine n°60 tools
2	DMGMORI	DMU70EVO	Travel on X axis 750 mm Travel on Y axis 600 mm Travel on Z axis 520 mm	CNC HEIDENHAIN TNC 530i with continuous 5 axes positioning 3D Heidenhain Touching probe TS641 Coolant through the spindle core with 40Bar pressure Electric spindle speed: 18.000 round/min Drive power 28KW Rapid traverse: speed=50 m/min ac=8 m/s2
1	GF	VCE1000PRO	Travel on X axis 1020 mm Travel on Y axis 560 mm Travel on Z axis 600 mm	Vertical milling Machine Center CNC HEIDENHAIN TNC 620 with3 axes Renishaw Touching probe 40,01-Mini Electric spindle speed: 16.000 round/min Drive power 14,75KW Rapid traverse on x, y, z axis: speed=40 m/min Tool Magazine n°40 tools with double rapid clamping pinch Blum Laser brake tool control
1	DMGMORI	DMC835V	Travel on X axis 835 mm Travel on Y axis 510 mm Travel on Z axis 510 mm	Vertical milling Machine Center CNC HEIDENHAIN TNC 530i 3D Heidenhain Touching probe TS641 Electric spindle speed: 14.000 round/min Drive power 19KW Rapid traverse: speed=30 m/min
1	SIP GENEVOISE	HYDROPTIC 6A	Travel on X axis 1000 mm Travel on Y axis 750mm Travel on Z axis 900 mm	Vertical jig borer with Acurite monitor display

Machine shop

N°2

MAZAK QUICK TURN 200MY

500 mm Bed (Universal)		Valori
CAPACITY	Chuck size main spindle	8 "
	Maximum swing	695 mm
	Maximum machining diameter	380 mm
	Bar work capacity main spindle	65 mm
FEED AXES	Rapid traverse (X axis)	30 m/min
	Rapid traverse (Y axis)	21 m/min
	Rapid traverse (Z Axis)	33 m/min
	Travel (X axis)	234 mm
	Travel (Y axis)	100 mm
	Travel (Z axis)	625 mm
BAR LOADER	LNS Sprint S3	3m.

N°2

MAZAK QUICK TURN 100MY

300 mm Bed (Universal)		Values
CAPACITY	Chuck size main spindle	6 "
	Chuck size secondary spindle	5 "
	Maximum swing	550 mm
	Maximum machining diameter	280 mm
	Bar work capacity main spindle	52 mm
FEED AXES	Rapid traverse (X axis)	33 m/min
	Rapid traverse (Y axis)	21 m/min
	Rapid traverse (Z Axis)	33 m/min
	Rapid traverse (W axis)	30 m/min
	Travel (X axis)	187 mm
	Travel (Y axis)	100 mm
	Travel (Z axis)	510 mm
	Travel (W axis)	460 mm
BAR LOADER	LNS Sprint 542	3m.

Top machines

MILLING MACHINES

DMU75 Monoblock

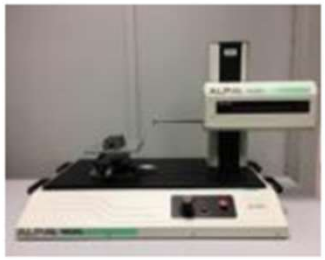
DMU50 + PH150/8

GF Mikron HPM450

DMC65 Monoblock

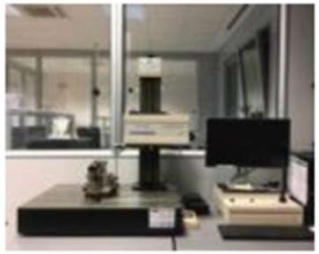
QUALITY CONTROL MACHINES

3D Scanner



LA440 Moto

EDGE SCANARM HD



FORM TALYSURF S4C

LH60CG

Inspection room

No.	BRAND	MODEL	TRAVEL AXIS (MM)	TECHNICAL SPECIFICATIONS
1	HEXAGON METROLOGY	GLOBAL	Travel on X axis 900 mm Travel on Y axis 1200 mm Travel on Z axis 800 mm	3D measuring machine with continuous scanning probe Indexing Renishaw head PH10MQ with touching probe SP600M-xe Software: PC-DMIS for Windows + Curve e Surface Precision 2,7+ L/250 um
1	HEXAGON METROLOGY	SCIROCCO	Travel on X axis 1500 mm Travel on Y axis 1000 mm Travel on Z axis 450 mm	3D measuring machine with continuous point-to-point probe Precision 4÷4,5 L/1000 um
1	HEXAGON METROLOGY	ABSOLUTE ARM 8525	Arm 2.5m	3D contact/non-contact portable measurement system 7 axis with RS5 Laser Line Probe Accuracy- ±28µm (±0,001in) Scan Rate- Speed 100Hz 7,520 points/line =752,000 points/sec Software PolyWorks Inspector
1	FARO	EDGE SCANARM HD	Arm 1.8m	3D contact/non-contact portable measurement system CAM2 Edge 7 axis with Laser Line Probe HD Accuracy- ±25µm (±0,001in) Scan rate- 280 frames/second, 280fps x 2,000 points/line = 560,000 points/sec Software PolyWorks Inspector
1	TAYLOR-HOBSON	FORM TALYSURF S4C	Max Travel 120 mm Vertical range measure 1 mm	3D Profile and roughness tester with inductive transducer; manual and automatic measure Resolution 0.016 x 0.25 µm Software: "Ultra" Surface Finish NT; DynaCADD98; Profile+

Team

The Caleffi Modena team is made up of an affiliated team and makes use of specialist external collaborations, and the collaboration of external engineering service for reverse engineering or design

Team

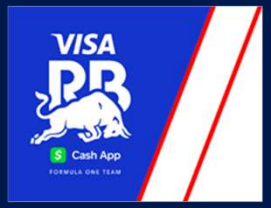
- **11 machine tool operators**
- **1 finishing worker**
- **2 quality control staff**
- **3 people in the technical office**
- **1 sales**
- **1 back-office**

Certifications and Skills

The Caleffi quality system is
- ISO 9001: 2015
- EN 9100:2018 form 2024

In the technical and production office there are 6 CAD - CAM stations equipped with hyperMILL® 5 Axis software

Reference


VISA
RB
Cash App


dallara


SAUBER Motorsport


PIAGGIO
GROUP


UMBRAGROUP
50th ANNIVERSARY


brembo


ORECA
THE MOTORSPORT COMPANY
RACING // CONSTRUCTEUR // TECHNOLOGY //


Gruppo Borghi


BF
BIEFFE
PROJECT


Lucchi R.
E-MOTOR SOLUTIONS
Since 1949

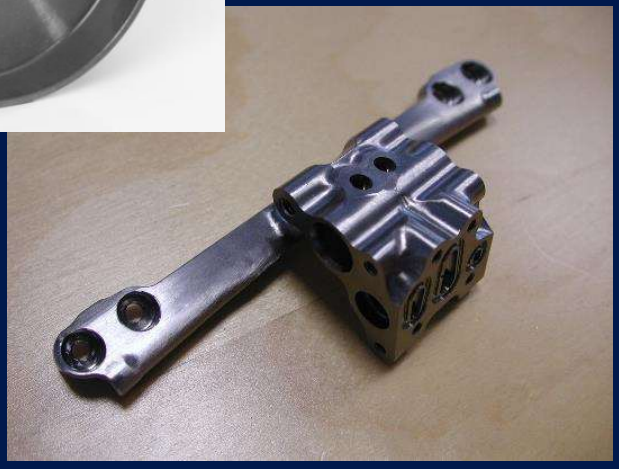

MT

Projects

Engine blocks and cylinders

Projects

Hydraulics

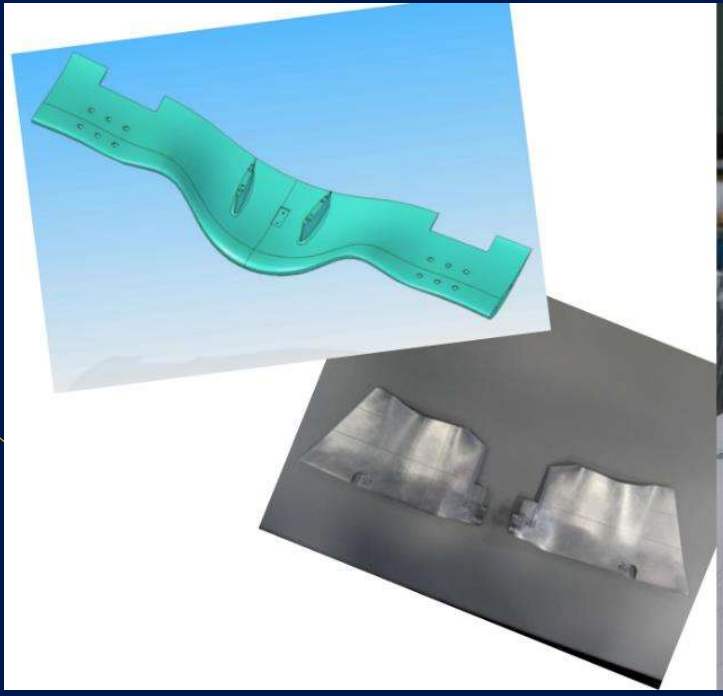


Projects

Complex components

Projects

Motorsport – wind tunnel and car components

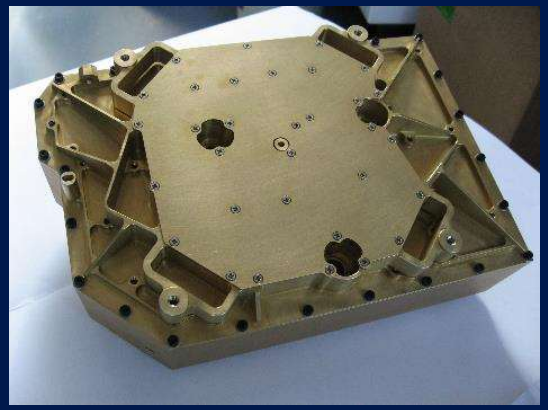


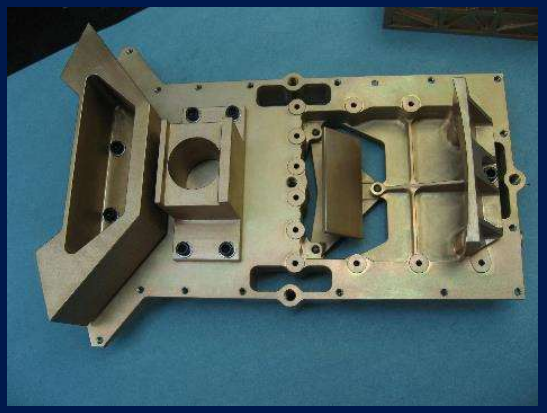
Projects

Braking systems

Projects

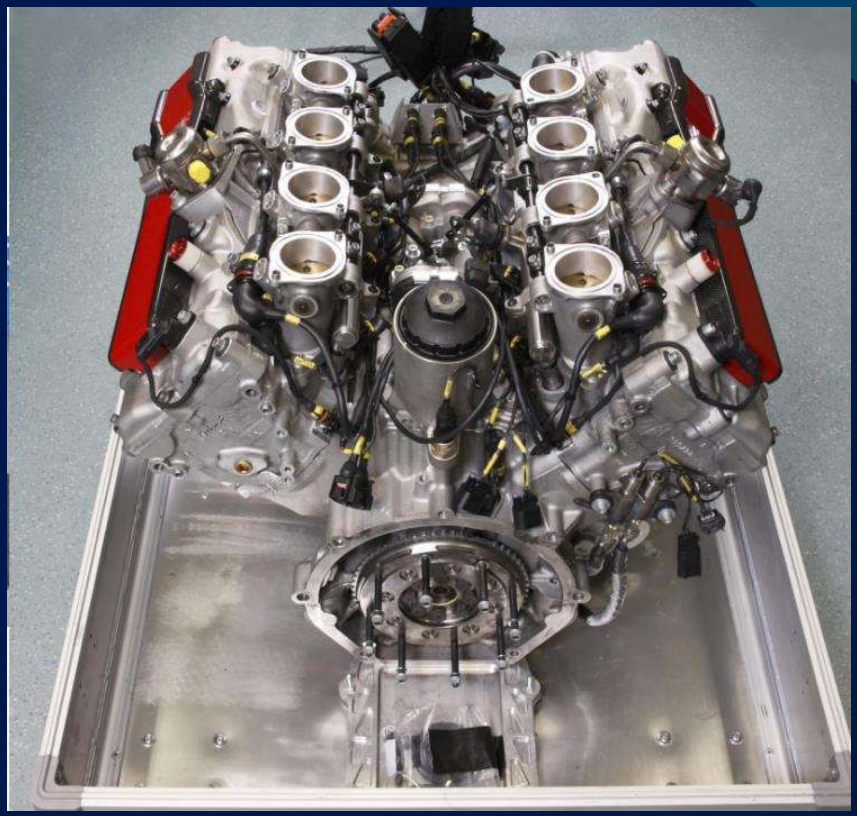
Aerospace





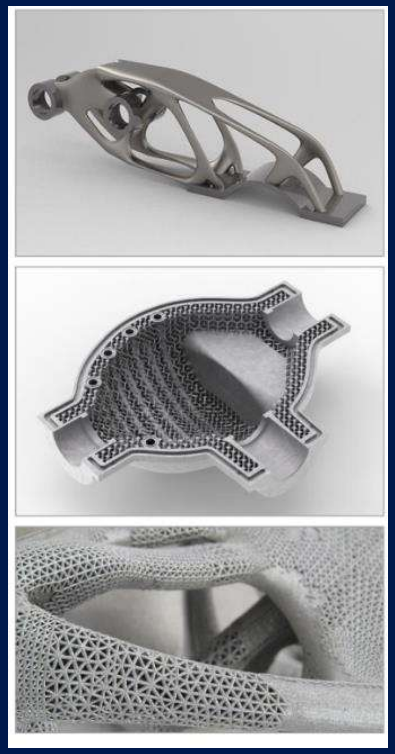
Projects

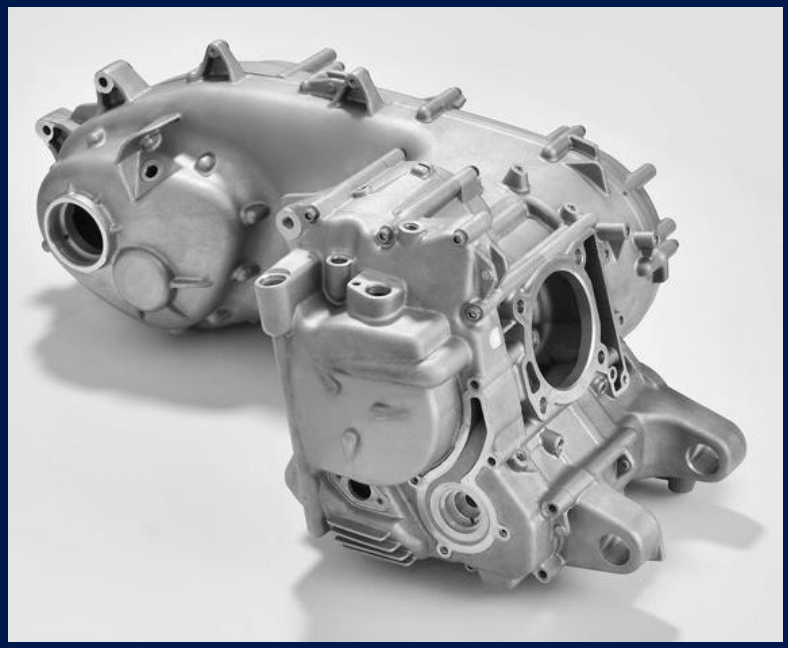
Reverse engineering



Projects

Casting and additive manufacturing components machining





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