

AC LAB.O

PRECISION ENVIRONMENTS

Climate rooms and controlled environments for metrology labs and special processes

Case history

AC GRAF





If you are looking for a specialized partner in the creation of **air-conditioned work environments**

If you are considering entering in your company a new **technical laboratory**, if you need a **metrology room with thermo-hygrometric control** or you want to modernize your **operational offices ...**

... find out how many advantages could bring you the collaboration with us: first of all a **turnkey supply**

We know how to anticipate your problems and we optimize processes and resources to allow you **saving time and money**

We are specialized in construction of **laboratories and air-conditioned environments**, redeveloping or converting your industrial spaces





Our environments are

SAFE

The documentation and certifications you will receive are what you need to be secure

EFFICIENT

Our team is able to offer you the best service on the market at an extremely competitive price

COMPLETE

The environment that we will provide you will be complete with everything you need. You won't have to worry about anything else



Each project starts with a **meeting with our client** to evaluate the solution that best suits the functional and economic needs of the customer

A detailed **3D simulation** gives you a clear preview of the result in all its contents before the execution phase

We use a **single design tool** for

- Architectural and structural modeling
- Air treatment and filtration systems
- Pneumatic, electrical and lighting devices
- Automation, technical and functional furnishings



Experience and service

From planning to commissioning in place, through certified and documented processes, **we create workspaces** to be integrated on your operational areas

Our team has gained the necessary experience to provide you with a **complete service**

We care for **design and building** of the commissioned rooms without any effort on your side



Our specialized construction teams guarantee a **quick installation service** all around Europe with competence and professionalism.





FEATURES:

Large glass surfaces,
automatic sliding doors
Dimensions 10x10x4 m

Precision **MonoEsse** air
conditioning system with
fine control of
environmental
parameters, ceiling air
diffusion with floor level
air intake ducts
T 20°C ±1K
1K/m | 1K/h | 2K/24h
U.R. < 60%

Complete electrical and
lighting system



FEATURES:

Double-leaf sliding door and motorized opening in the roof for use of the plant's overhead crane

Dimensions 14x7xh6 m

High precision **MonoEsse** monobloc air conditioning system suitable for the rapid restoration of environmental conditions following the opening of doors/roof passages, capillary ceiling air diffusion, floor level air intake ducts

T 20°C ±2K

1K/m | 1K/h | 2K/24h

U.R. < 60%

Complete electrical and lighting system



FEATURES:

Three separate rooms with internal doors

Dimensions 14x10xh4 m

Precision **MonoEsse** air conditioning system with fine control of environmental parameters, ceiling air diffusion with floor level air intake ducts

T 20°C ±2K

1,5K/h | 1,5K/m | 2K/24h

Complete electrical and lighting system



FEATURES:

Two separate rooms with internal doors

Dimensions 7x5xh3 m

Double air conditioning system with separate room controls, ceiling air diffusion with floor level intake ducts

T 20°C ±2K

1,5K/h | 1,5K/m | 2K/24h

Complete electrical and lighting system



FEATURES:

High thermal insulation, walkable mezzanine roof, integrated support structure for the internal overhead crane

Dim. 10x6xh6 m

Precision **MonoEsse** monobloc air conditioning system, ceiling air diffusion with floor level air intake ducts

T 20°C ±1K

1K/m | 1K/h | 2K/24h



FEATURES:

Highly insulated walls, roofing and walking surfaces, entrance hall with double door, anti-static flooring

Dimensions 15x7xh4 m

Precision **MonoEsse** air conditioning system with fine control of environmental parameters, ceiling air diffusion with floor level air intake ducts

T 20°C ±1K

1K/h | 1K/m | 2K/24h

U.R. < 60%

Multi-probe temperature and humidity monitoring system, complete electrical and lighting system



FEATURES:

Opening gate with insulated and motorized rapid roll door

Dimensions 12x8xh6 m

Impianto di climatizzazione di precisione Chiller + UTA con impianto di monitoraggio di temperatura e umidità relativa, diffusione aria a soffitto e riprese dal basso su ogni parete del laboratorio

T 20°C ±1K

1K/h | 1K/m | 2K/24h

U.R. < 60%

Complete electrical, lighting and pneumatic systems



FEATURES:

Double room solution, insulated and motorized rapid roller doors interfaced with CMM loading trolley
Dimensions 15 x 7 x h6,5 m

Double air conditioning system consisting of single chiller and two air treatment units, with high precision performance in the metrology room and high flow the pre-cooling room for a quick acclimatization of the parts to be measured, roof-top air diffusion

T 20°C ±1K

1K/h | 1K/m | 1K/24h

Complete electrical and lighting system

Case history

High precision metrology department



FEATURES:

Internal partition in two rooms: metrology room and pre-acclimatization room, large vertical sliding doors for movement of the parts to be measured

Dimensions 12x8xh6 m

Chiller + AHU high-precision air conditioning system with fine control of environmental parameters, ducted air diffusion with floor lever intake ducts

T 20°C ±1K

0,5K/h | 0,5K/m | 1K/24h

U.R. < 60%

Lighting system

Case history

Metrology room with opening roof and big pre-cooling room



FEATURES:

Opening gate in the roof, large pre-room with automatic interlocked doors

Dimensions 16x12x5 m

Chiller + AHU air conditioning system for high stability of horizontal and vertical spatial gradients, ceiling air diffusion, micro-perforated anemostats
T 21°C ±0,5K
0,5K/m | 0,5K/h | 1K/d

Complete electrical, lighting and pneumatic systems



FEATURES:

Double-leaf sliding door and motorized opening in the roof for use of the plant's overhead crane
Dimensions 16x8x6 m

High precision **MonoEsse** monobloc air conditioning system suitable for the rapid restoration of environmental conditions following the opening of doors/roof passages, capillary ceiling air diffusion, floor level air intake ducts
T 20°C ±2K
1,5K/m | 1,5K/h | 2,5K/24h

Complete electrical and lighting system



FEATURES:

Double-leaf sliding door and motorized opening in the roof for use of the plant's overhead crane

Dimensions 8x5xh4,5 m

Precision **MonoEsse** monobloc air conditioning system, ceiling air diffusion with floor level air intake ducts

T 20°C ±1,5K

1,5K/m | 1,5K/h | 3K/d

Complete electrical, lighting and pneumatic systems



CARATTERISTICHE:

Motorized opening gate on the roof to use the plant's overhead crane for loading/unloading the CMM, rapid motorized side door with high insulation

Dimensions 12x6xh6 m

Idroblakk high precision ducted monobloc air conditioning system, ceiling air diffusion with intake at floor level

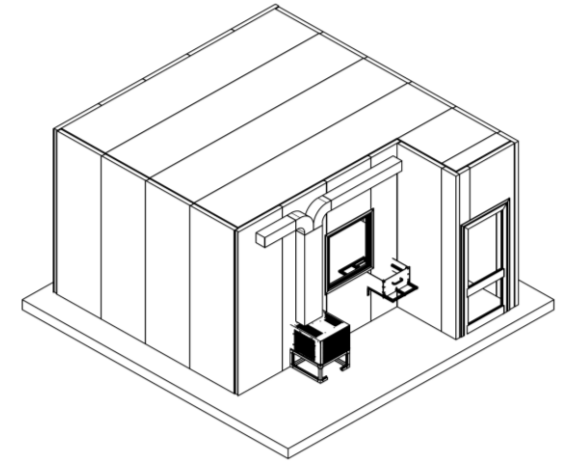
T 20°C ±1,5K

0,5K/m | 1,0K/h | 1,5K/d

Complete electrical, lighting and pneumatic systems

Case history

Quality room for production supervision



FEATURES:

Entrance with double door, sliding drawers for quick entry of parts to be measured

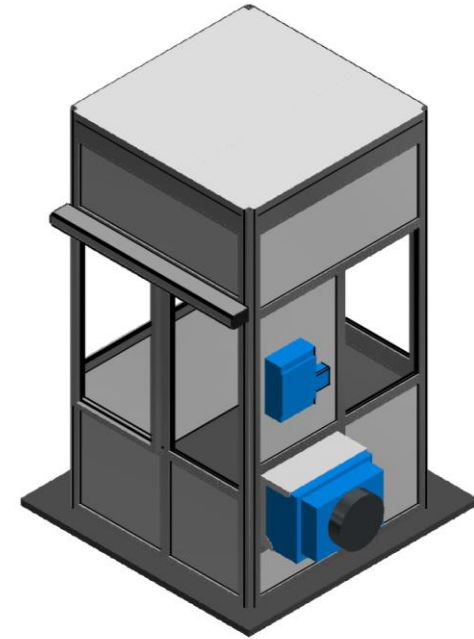
Dimensions 6x5xh3,5 m

Metroframe compact monobloc air conditioning system, air diffusion to the cabin top with lower intake ducting

T 20°C ±2K

1K/m | 1,5K/h | 3K/24h

Complete electrical and lighting system



CARATTERISTICHE:

Motorized sliding door interfaced with the robotic production line, for loading/unloading the CMM

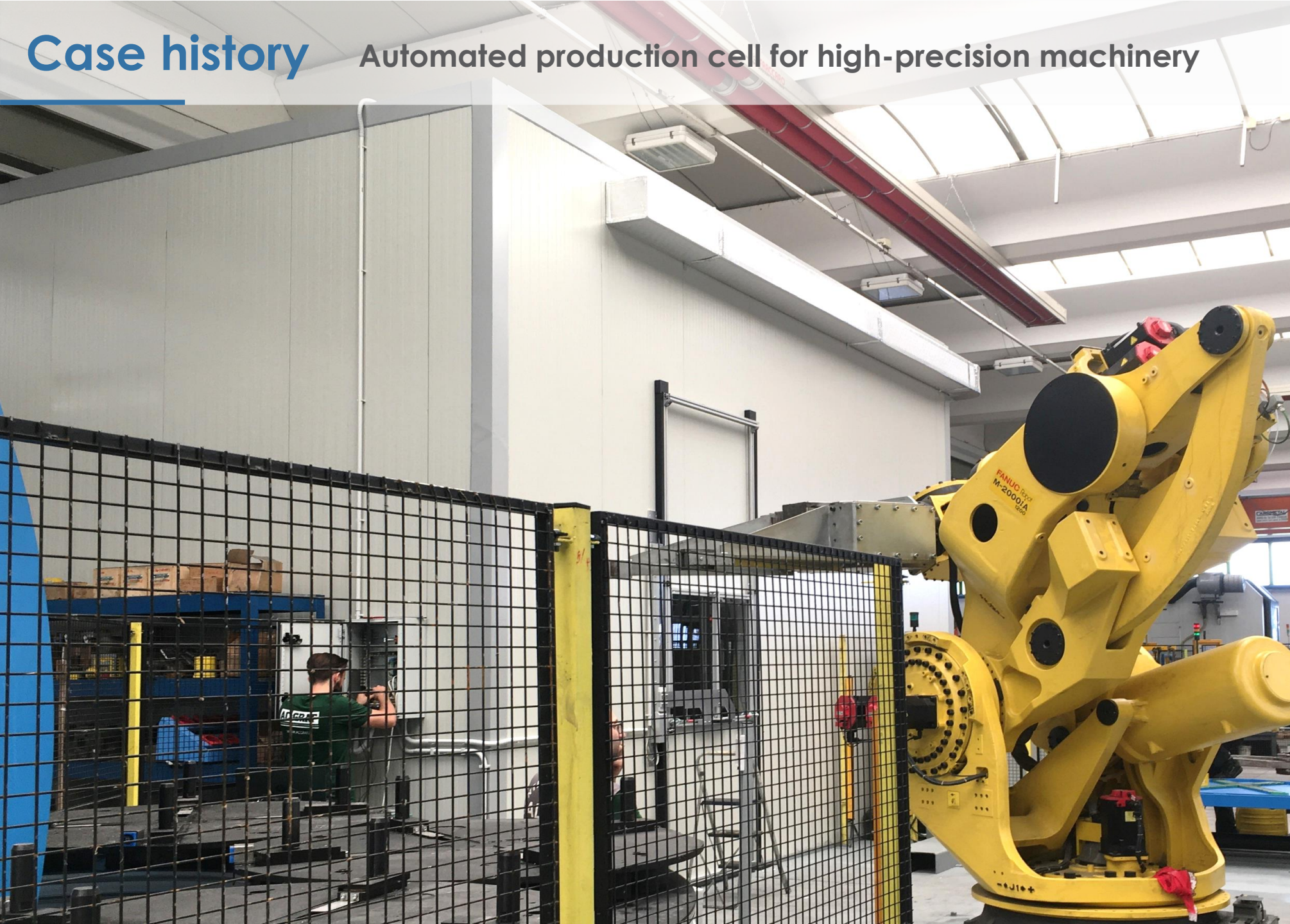
Dimensions 2x2x3 m

Metroframe compact monobloc air conditioning system, air diffusion to the cabin top with lower intake ducting

T 20°C ±2K

1K/m | 1,5K/h | 3K/24h

Complete electrical and lighting system



FEATURES:

Motorized vertical sliding gate interfaced with the robotic production line, for loading / unloading of the machining center

Dimensions 7x6xh5 m

Monobloc air conditioning system
Monoesse with fine temperature control, perimeter air diffusion ring with intake ducts from low level and heat expulsion ducts

T 20°C ±1,0K

1K/m | 1K/h | 3K/24h

Complete electrical and lighting system

Case history

Hermetic climate cabins for foundry cores drying



FEATURES:

Series of 4 cabins with high thermal insulation for the acclimatization of casting cores, each equipped with 6 automatic interlocked doors for entry and exit of the parts in a non-stop cycle

Dimensions 12x6x3,5 m

Air conditioning and air treatment system for the fine maintenance of hygrometric and temperature parameters, capillary air diffusion on the ceiling, floor level air intake ducts

23°C ±1,0K

U.R. 25% ±5%

Complete electrical and lighting system



FEATURES:

Highly insulated calibration laboratory to obtain maximum climatic stability
Dimensions 20x6xh3,5 m

High performance chiller and air treatment units for high stability of gradients;
Ceiling air diffusion with micro-perforated anemostats, floor level air intake ducts
T 20°C ±0,5K;
0,1K/h | 0,3K/m | 0,4K/d

Complete electrical and lighting system

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Thanks for watching

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