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FABBRICA MACCHINE TAGLIO F.M.T. SRL

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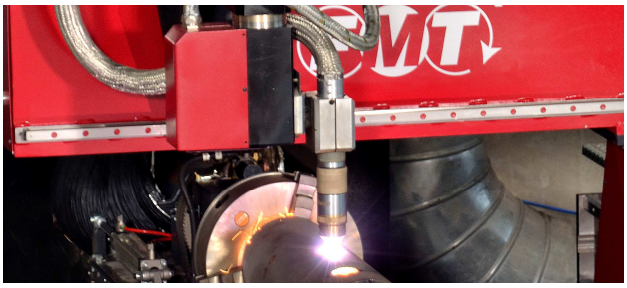
1. THE COMPANY

The company **FABBRICA MACCHINE TAGLIO F.M.T. Srl** was founded on the initiative of a group of managers with an experience of over 20 years and know-how in the construction of machines for thermal cutting of sheet metal and a deep knowledge of the automotive industry. The group collects the engineers and technicians of the most important company in Europe for cutting machines.

The Company has been following, in recent years, a growth path becoming a growth path today as well know nationwide in the market. The Company has reached its competitive position by virtue of the research that has enable it to offer the market a range of products and comprehensive services.



F.M.T. maintains a tradition of technological innovation of its products and production processes, pursuing excellence especially through the adoption of original technological solutions and advanced technologies.

The Company acts as a reference on the national and international machine tools market, offering customers a complete service: software, machines and technical assistance in all parts of the world, with highly skilled staff.

The proposed solutions have a strong product customization since they are aimed at satisfying the customer's needs. Our strategy is to focus on customer needs and direct our experiences to improve the productivity and competitiveness of the customer allowing an effective return on investment with a substantial reduction in processing time and operating costs.

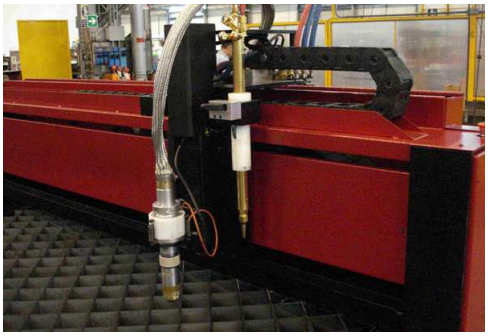
At Home, the Company has its own design structure, which controls the strategic functions that make up the final product. This structure also allows you to develop projects and solutions "ad hoc" to solve specific customer needs, while maintaining a good level of standardization of production.

PRODUCTS

The plasma cutting machines represent the company's core business and are classified as follows:

- **Conventional source plasma machines**: that are equipped with plasma traditional type used for the construction of pipelines for air conditioning and vacuum, for light carpentry works and media.

- **High definition plasma machines**: using the process HTPAC (High Tolerance Plasma Arc Cutting), which is a source of high definition for quality cutting.



TECHNICAL SUPPORT AND AFTER SALES SERVICES

F.M.T. is committed to delivering both the best cutting machine technology and the best after sales customer support to optimize the customer performance.

The Company also provides a full-service retrofitting existing cutting machines by providing the most advanced technology which can further extend the life of machinery, increasing the productivity and reliability.

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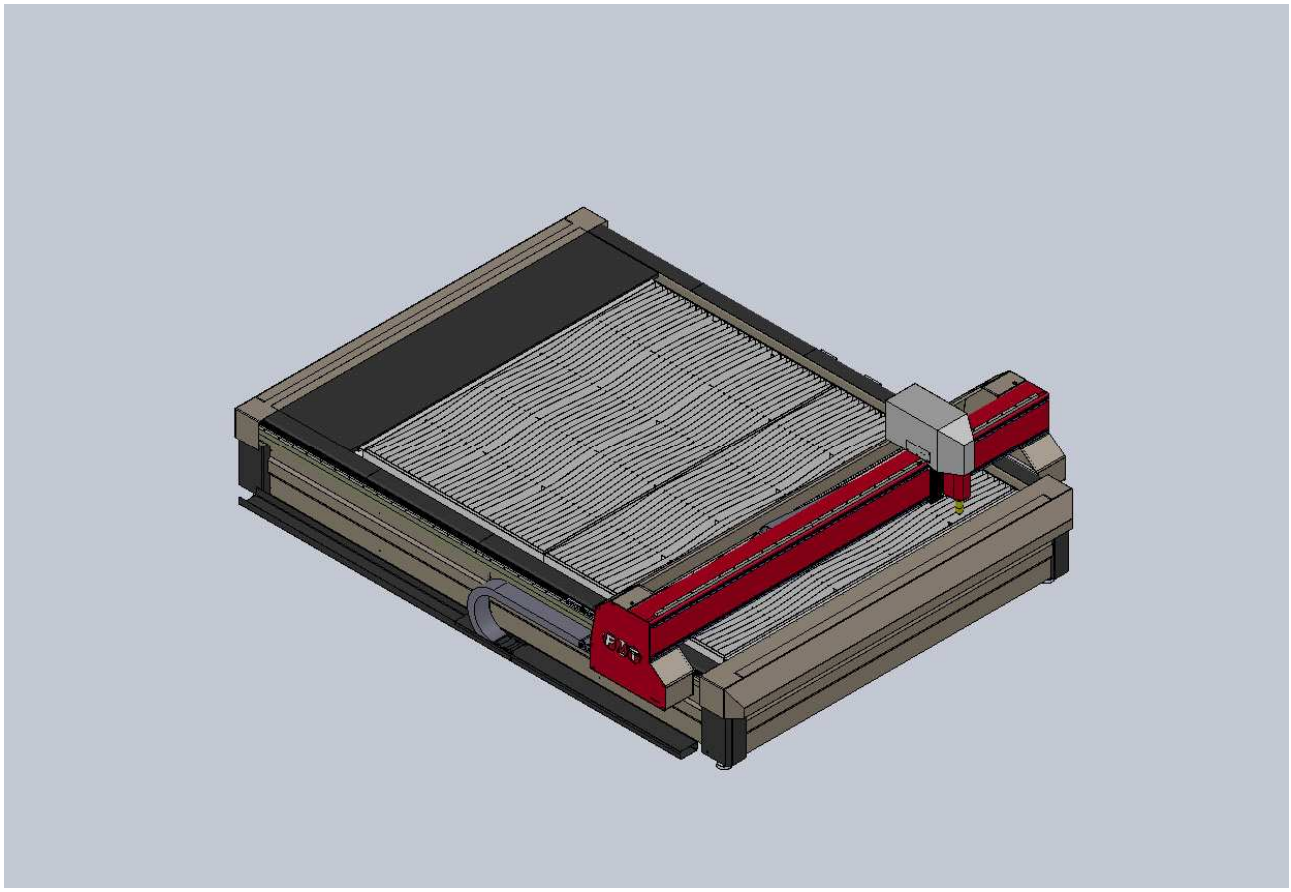
2. LIST OF STANDARD MANUFACTURING RANGE

XM EVOLUTION cutting system



XM EVOLUTION is a complete high-definition large format plasma cutting system. A primary feature of this system is the modularity of the length, which allows you to extend the machine, even as an upgrade after purchase.

The cutting head, which includes the plasma torch and any other accessories described in the appendix, runs along toughened and rectified guides, by means of a helical rack and pinion couple.

The torch moves in the vertical axis via a ball screw drive, on linear ball screw guides. During the cutting phase this vertical movement also serves to compensate the undulation of the sheet using feedback from the arc voltage; thereby keeping the torch at a constant distance from the sheet during cutting; an extremely important factor for the life of the consumables and the cutting quality.

The torch unit is fitted with an anti-collision system, which prevents the torch being broken and shutting the machine down in the case of accidental impact. This system was created and built entirely by FMT, thereby allowing total integration with numerical control.

The gantry, comprising a high-rigidity square section beam and two shoulders which carry the motors and the electrical and system connections, scrolls on toughened guides on two racks driven by motors connected within the gantry to ensure maximum acceleration and precision.

The electronic component of the movement comprises brushless servo motors with high resolution encoders, controlled by entirely digital actuators integrated within the motors. These actuators are connected to the CNC via a digital bus.

The sheet being worked is placed on a grille made up of simple rectangular strips of metal, which can be very simply and rapidly replaced, for which a design plan is supplied.

The grille can rest on a suction workbench, it is modular and divided into sections, to concentrate the suction which is maintained below the cutting zone. Otherwise, it can be placed on the machine chassis and the suction takes place via a vacuum hood which moves below the grille together with the gantry. This solution, which achieves a significant saving in investment and operating costs (less power required for the aspiration unit) has the following limits:

- Maximum machine length 6000 mm.
- Maximum cutting current 130 A.

Dimensions (see enclosed layout):

Torch height: 100 mm

Standard useful stroke (y axis):

- 1500
- 2000
- 2500
- 3000

For custom requirements greater widths can also be supplied.

Standard useful stroke (x axis):

From 3000 up to 24000, as well as to order.

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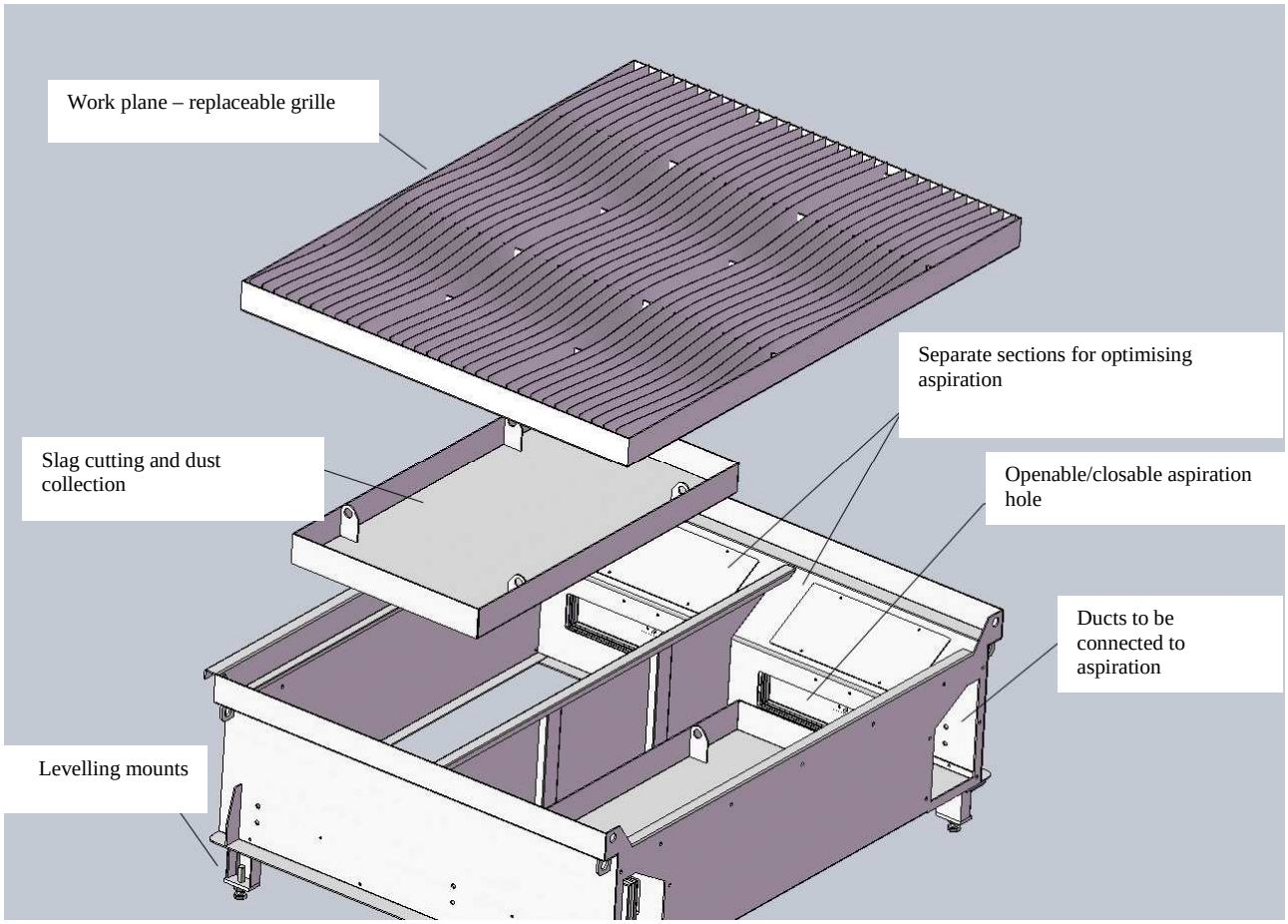
ASPIRATION AND SLAG REMOVAL SYSTEMS

SUCTION WORKBENCH

The bench comprises a welded 4 mm thickness steel structure, which stands on four adjustable feet for levelling.

This structure bears the work plane, made up of a grille of easily interchangeable steel sheet metal, containing an internal suction chamber. This chamber is divided into 800 mm wide sectors, which can be opened to the vacuum conduits via pneumatic cylinders.

The CNC selects which sector to open, leaving the unused ones closed and thereby optimising suction power, scaled to the size of the machine.



To achieve correct aspiration it is necessary to have a depression output equivalent to that given by the fan.

The exhaust fumes from the machine to the aspirastion system contain: Particulate material depending on the type of metal or alloy being cut; nitrogen oxides (NO_x), carbon oxides (expressed as CO_x oxygen (expressed as O_x), volatile organic substances; for this the aspirator must contain an appropriate filter for the particles produced during cutting or other processes producing fumes and/or dust.

Solid residues (cutting slag), which go into the machine's collection bin, must be collected in suitable containers for storage and disposal by an authorised firm authorised in accordance with the requirements of current relevant regulations.

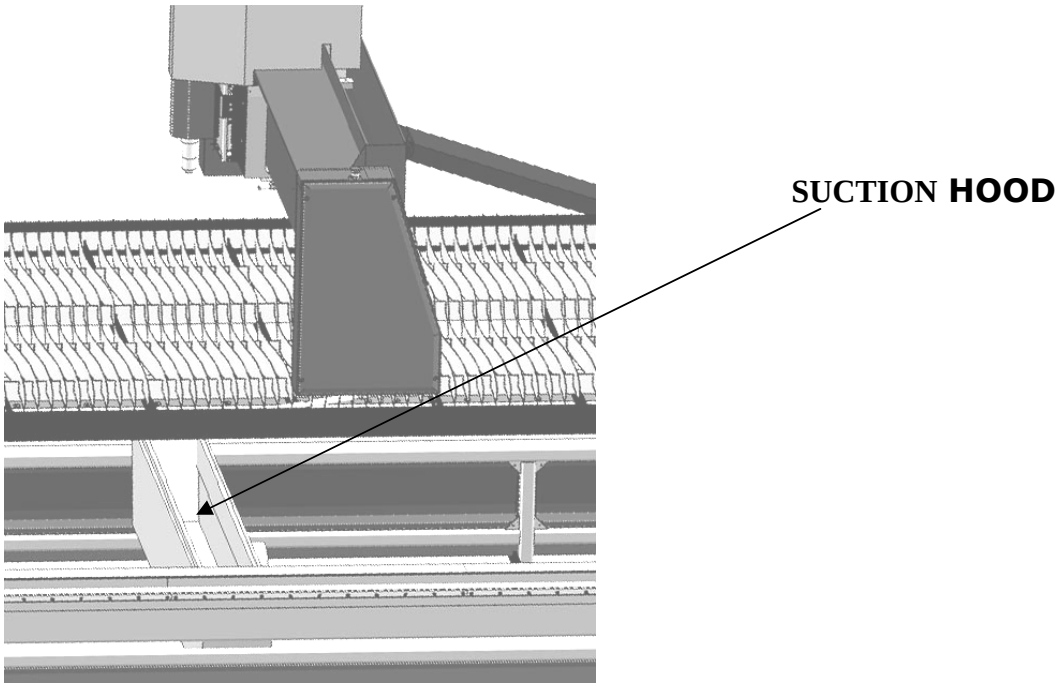
Cutting residue powder, filtered by a filter appropriate for the type of emission and collected in bags, must be disposed by an authorised firm in accordance with the requirements of current relevant regulations.

Filter cartridges must be maintained according to the directions in the associated instruction manual.

*>> **The client is responsible for connecting the aspirator to the machine and to the flue, for emitting the filtered air externally according to the environmental regulations in force in the country of installation.***

The following European directives concern air quality standards, regarding specific pollutants and pollution by industrial systems: **80/779, 82/884, 84/360, 85/203.**

HOOD

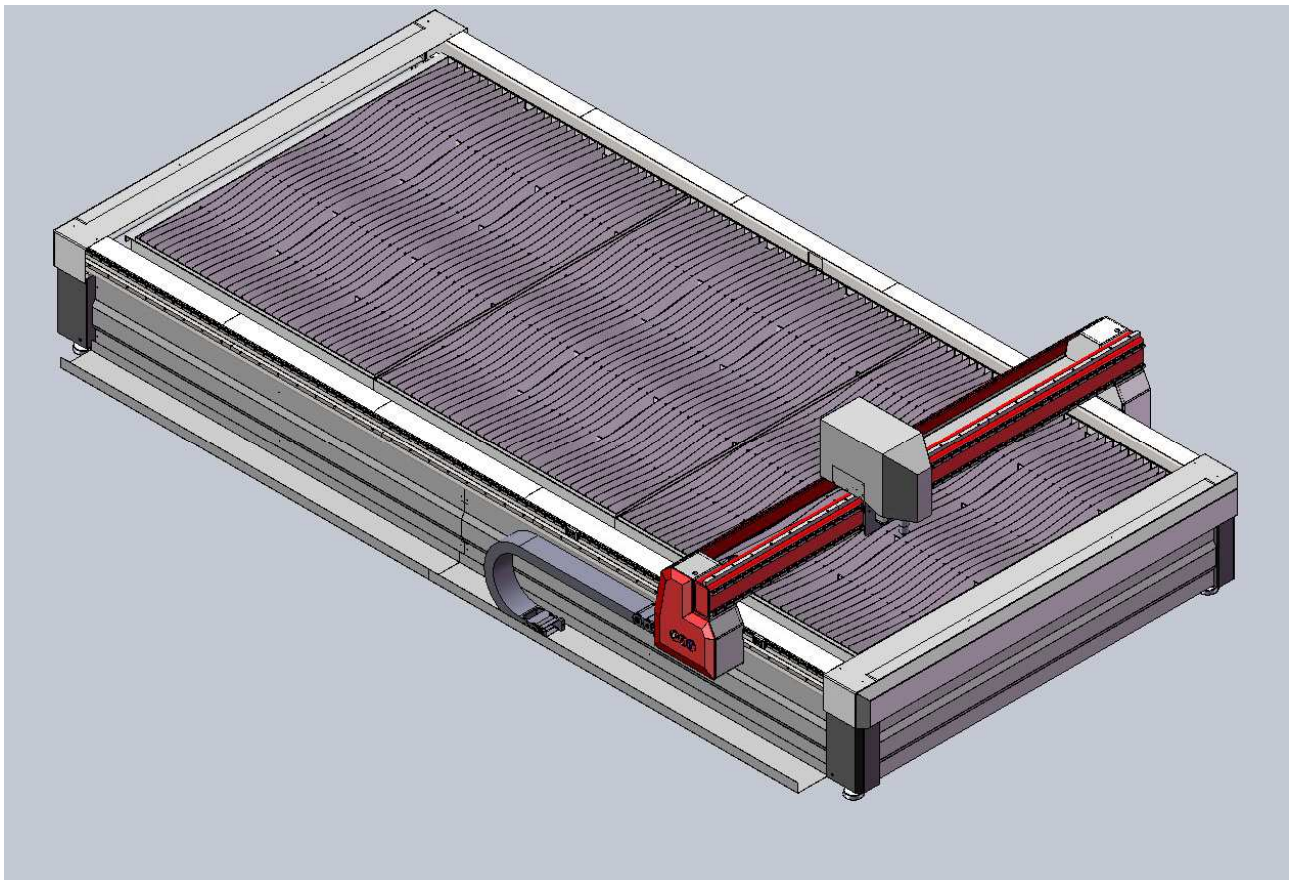


The suction hood is a type of container which travels with the gantry, concentrating the suction below the work area, thereby reducing operating and investment costs, and significantly reducing the power required for the suction unit.

Solid residues should be removed manually, by bringing the gantry behind the front part of the machine and opening a door in the lower part of the hood.

As regards the composition and processing of fumes and powder, the same applies as for the suction bench.

MID cutting system



MID fits within the range as the younger sister model of the EVOLUTION, designed for small and medium formats.

In accordance with the same manufacturing philosophy as for EVOLUTION, it has extremely compact versions with lengths up to 4000 mm recreating the concept of modularity for greater lengths.

These machines can be fitted with both the classic suction workbench, and the suction Hood, which moves together with the gantry, thereby always remaining below the cutting zone, in the same way as for the EVOLUTION model. The hood version has its limitations: usable length 4000 mm and cutting amperage 130 A.

The mechanical and electronic motion is identical to the EVOLUTION (strengthened and rectified high resistance square section, brushless motors), of a scale for moving a lower mass, maintaining torch height control with feedback on the arc voltage and torch anti-collision device, identical to those on the EVOLUTION model.

Dimensions:

Torch height: 100mm

Standard useful stroke (y axis):

- 1500
- 2000

Standard useful stroke (x axis): (Così poco?)

- 3000
- 4000

Greater lengths can be considered on request.

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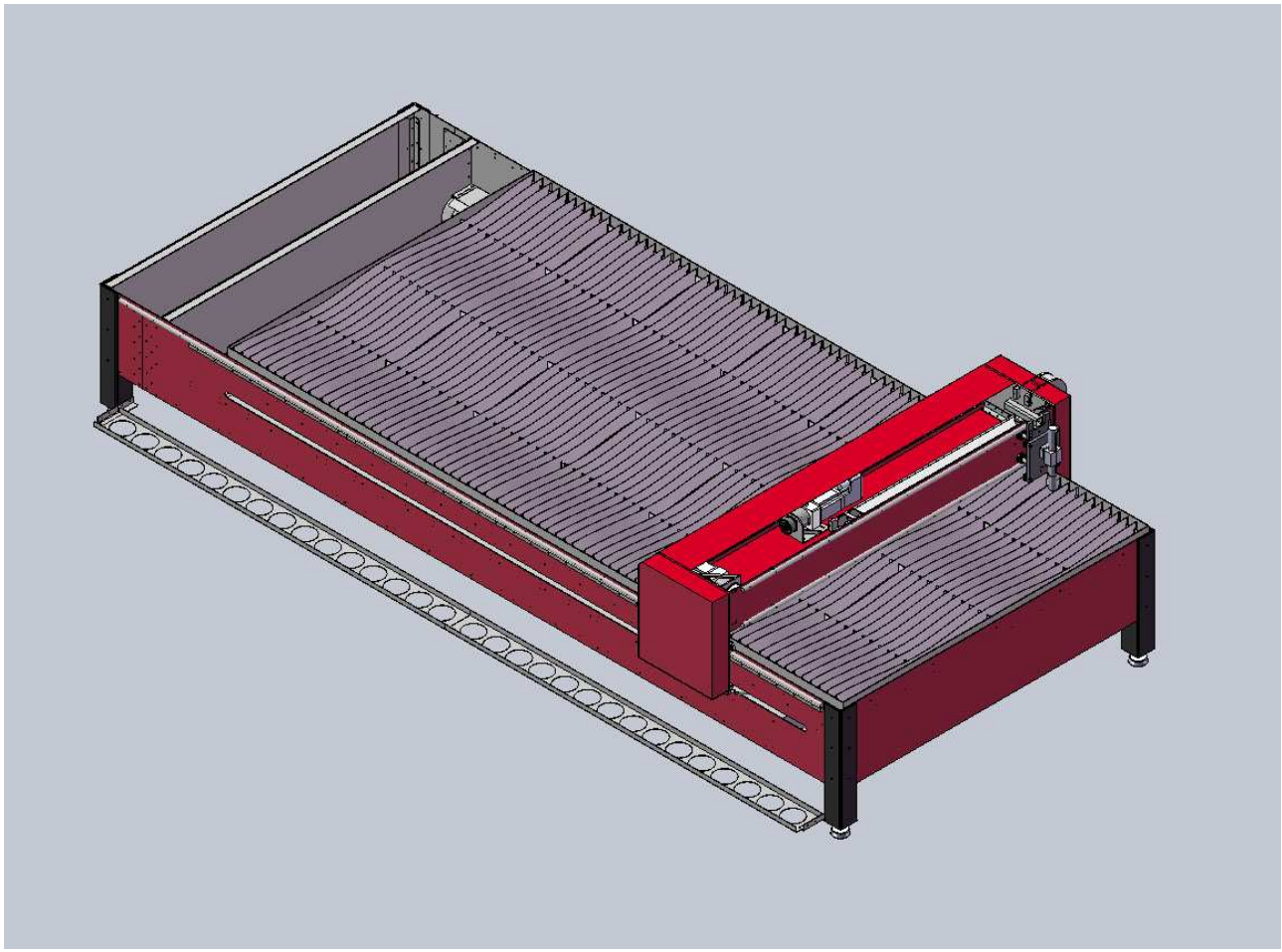
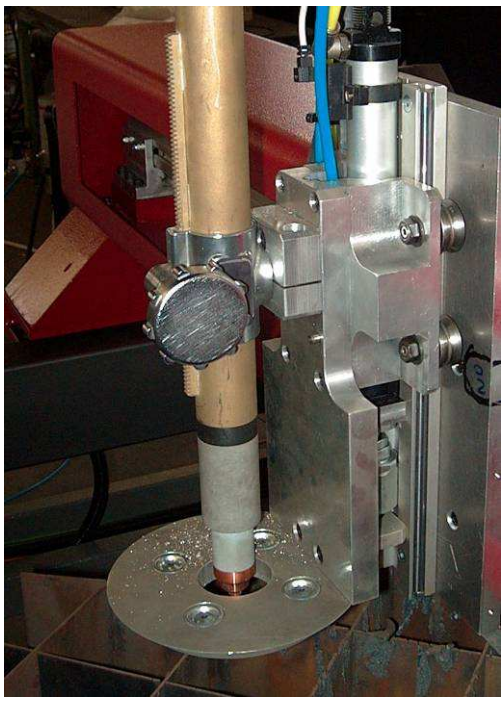
SMART cutting system



This extremely simple and economic machine is aimed at customers working on low thickness sheets not requiring the torch height control necessary for high-definition work.



The movement guides are still strengthened and rectified, and there are also the integrated brushless motors. The torch's downward motion is controlled pneumatically, with adjustable pressure, and the cutting height can be adjusted manually. The machine is fitted with a 4-sphere truck which, in contact with the sheet, maintains it stretched in the cutting zone.

Fumes and cutting residues are removed only via a suction hood, as described above.

The machine is supplied in two sizes:

- 1500 x 3000
- 2000 x 4000

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NUMERICAL CONTROL

All machines produced by FMT are fitted with S500 series numerical controls, produced by the leading Italian maker, ESAUTOMOTION.

Features:

The S500 Range is a family of powerful and versatile CNC controllers, working with X,Y,Z coordinates for cutting, stock removal and shaping applications.

Common specifications of the entire Range:

Up to 156 axes controlled

Multichannel structure

Rtcp control

Communication protocols: ETHERNET and USB memory

Gantry axes

High speed machining

Thermal cutting performance

User interface freely programmable by the OEM

Extended remote diagnostics

Laser cut performance

Water jet cut performance

The following models are used in our machines:

S510 for EVOLUTION and MID

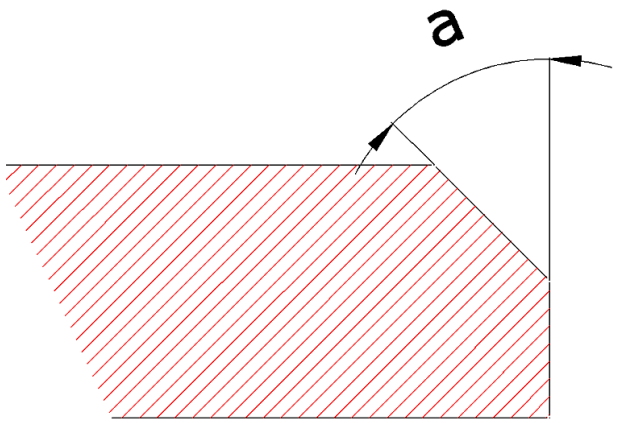
S505 for SMART

S500 for EVOLUTION with 5 axis head and pipe cutting.

APPENDIX A

5 AXIS PLASMA CUTTING HEAD – DESCRIPTION

This head was designed and built to meet the needs of multiple operators: the need for inclined cutting on the work sheet, or a straight cut plus a bevelled part, as the figure to the side shows. When the inclined portion, **a** acts on the entire thickness, the cut is made in a single pass, otherwise it is necessary two; one for each cutting angle.



The X, Y and Z axes are the same as for traditional machines and the following additional axes are necessary for bevelled edges:

A Axis of rotation around direction Z

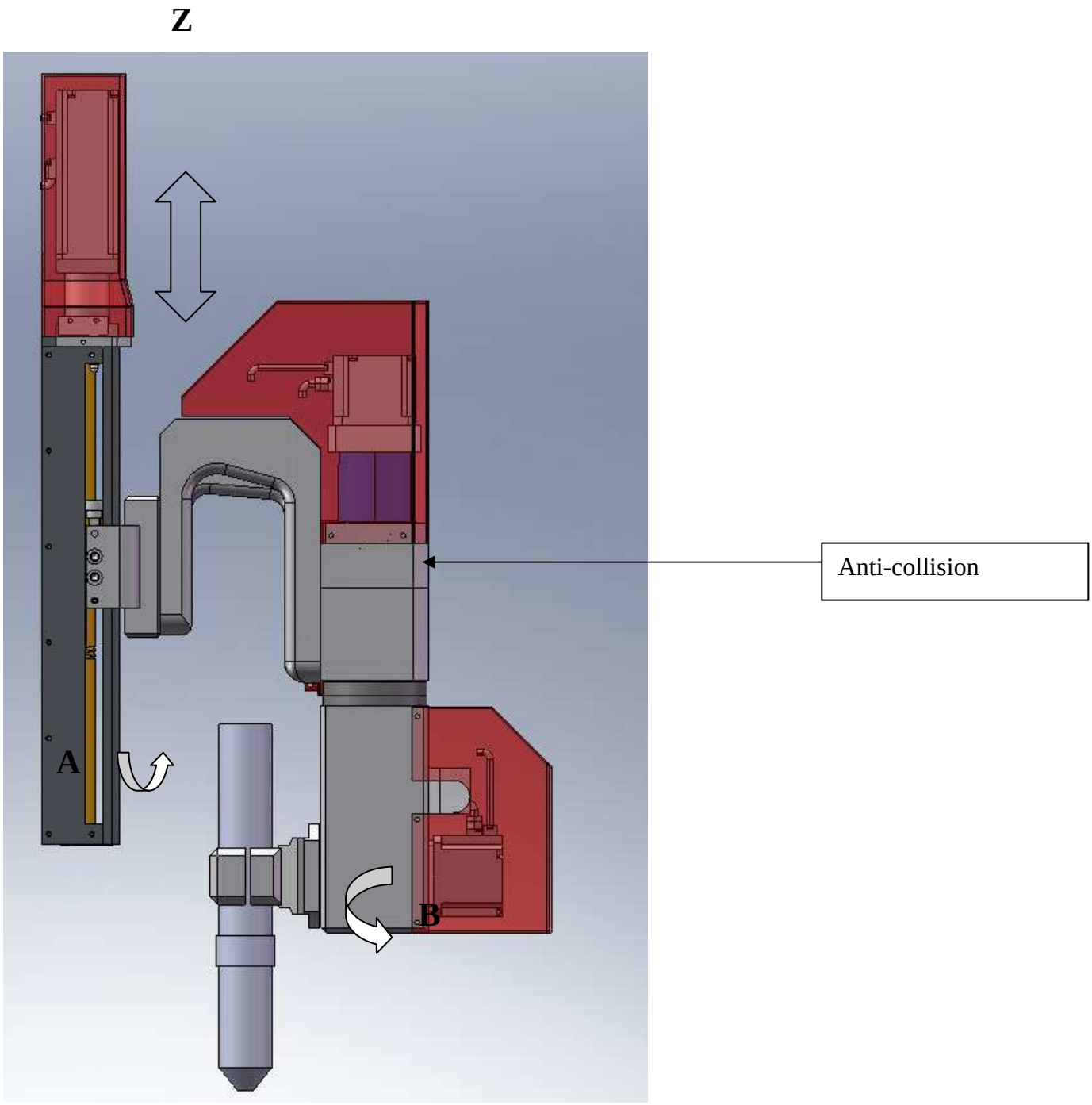
B Axis of rotation orthogonal to A

The physical arrangement of these axes allows any trajectory needed for the cut, without the obstacle of the torch cable, which cannot be interrupted.

Have been Chosen "Brushless" motors , digitally actuated via a dedicated bus. The two axes of rotation support on epicycloidal gears with reduced play.
An anticollision function, for safeguarding the torch from potential impacts with work pieces and/or residues created during cutting, has also been realised.

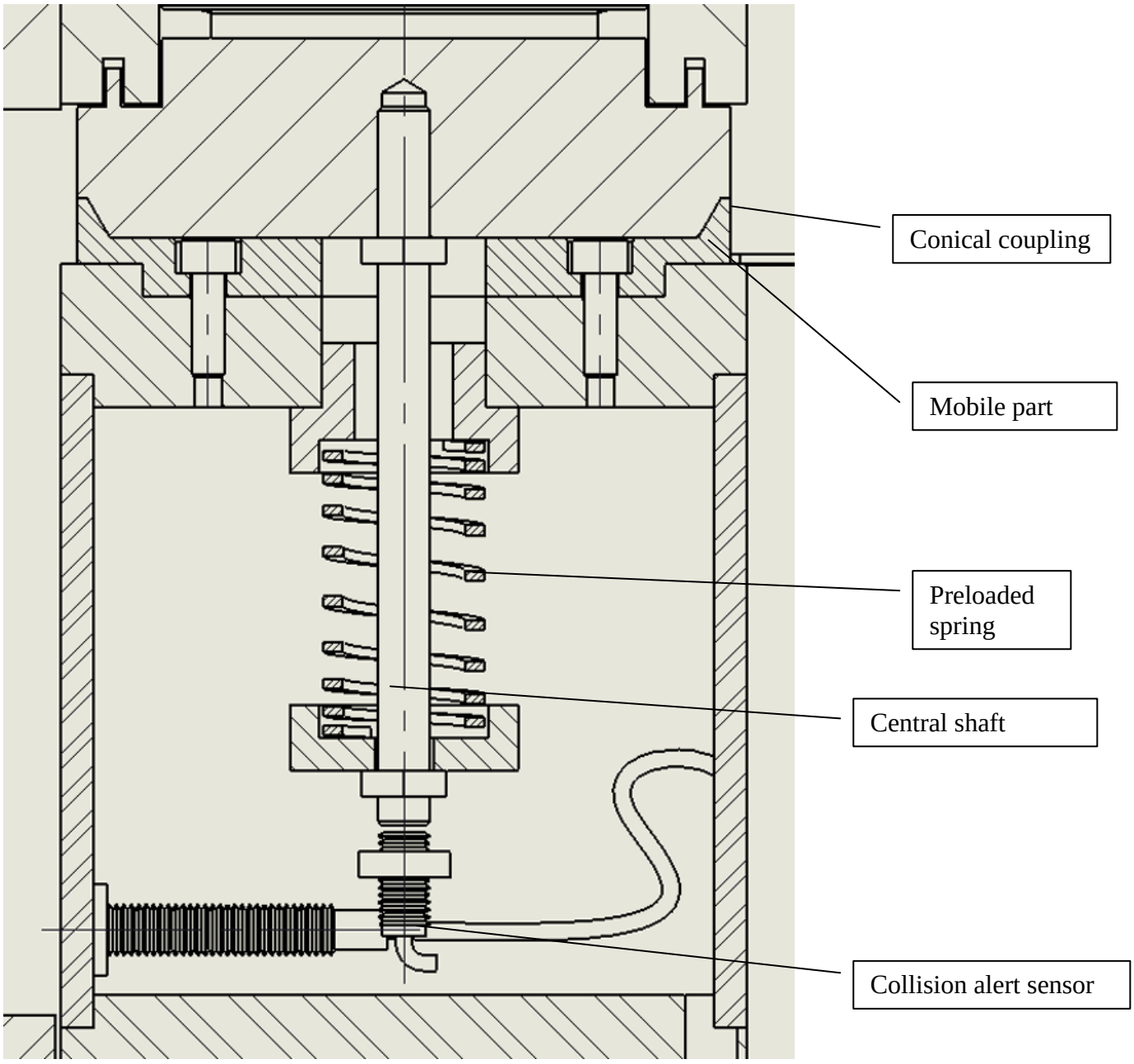
This function, included on the normal range machines with a rather complex mechanism, is drastically simplified. It is based on a conical coupling held in position by a central preloaded spring on a shaft, which also bears the collision alert sensor.

The following diagram, taken from the plans, provides a schematic illustration of the axes.



The anti-collision system, essential for protecting the integrity of the torch in the event of accidental impact against work pieces and/or cutting residues, was designed to take a simpler form than that mounted on traditional machines.

Its action can be seen in the diagram below, which shows a cross section of the B axis.



The mobile part is kept in contact with the fixed part by the conical coupling preloaded by the spring.

In the event of a collision, the impact overcomes the loading of the spring, the conical coupling comes away and the mobile part can incline; allowing the torch to remain in place. The sensor ceases to detect the presence of the central shaft, which causes the machine to shut down.

Two software modules are supplied for optimal use of the head:

CAD module

This module allows the machine operator to read the designs of items to be produced by the client in vector format (DXF), adjust them and potentially correct them. New pieces may also be defined, as it has basic design functions.

CAM module

Having defined the geometry in the CAD module, the CAM applies the cutting technology to this geometry:

- Arc diameter/physical cutting width compensation, to restore the effective scale of the work piece to the design values (KERF). This value varies according to the cutting parameters, such as current, which the operator must set for the plasma according to the material, thickness and tolerated speed/quality compromise (greater current gives greater speed, therefore productivity, lower current gives-better quality, at the expense of speed).
- Type of cutting input and output. There are various ways to start and finish the piece and experience tells us to use the most suitable, case-by-case. In the case of bevelled cutting there is a new requirement: cutting must be started with a straight torch for the first pierce then, during the approach trajectory the torch must be angled, in order to be at the correct configuration for starting the piece.
- Calculation of the trajectories of the axes according to the above points.
- NESTING, which allows you optimally to place various pieces on the sheet, thereby minimising cutting residue.

APPENDIX B

DRILLING UNIT

This unit allows you to drill/countersink/tap metal pieces.

Mechanical specifications

Vertical movement (**Z1** axis): Brushless motor

Spindle (**F** axis): Brushless motor

Up to 12 position tool magazine: The magazine holds up to 12 tools in the ISO30 version and 6 in the ISO40 version and can rotate thanks to its brushless motor. The magazine moves from the rest position to the change position below the spindle via an air piston.

Lubricant reservoir for tapping: Actuating the associated valve provides sprays of lubricant of duration of around 1 sec.

Air piston actuated sheet press: Has the role of flattening any sheet deformation. The tip lubrication jet (for lubrication from an external reservoir which supplies a mixture of lubricant via the Venturi effect) and the tap lubricant pipe are mounted on it; also there is an air jet from two holes below the sheet press, which cleans shavings of the sheet in the area below the tip.

Anchoring plate: The drill is mounted on an anchoring plate, and can slide upwards via a key. The system has a safety impact system when operating: an obstacle preventing downward movement causes it to slide upwards which triggers an emergency circuit.

Safety cams: There are three cams which provide movement safety for the drill. One for the top of the vertical movement (end of track), one for the bottom and one cam for the zero.

N.B. The entire drilling unit is insulated from the mother plate. to allow the acquisition of the quote of the grille by means of the closure to mass of the 24V present on it.

Electrical specifications

Sensors for the sheet press pistons: The right piston is fitted with a proximity sensor which detects whether the sheet press is up or down.

Magazine sensors: Provide the position of the piston which allows automatic tool changing (magazine in or out).

Valves: There is an array of 6 valves and they control:

Tapping lubrication

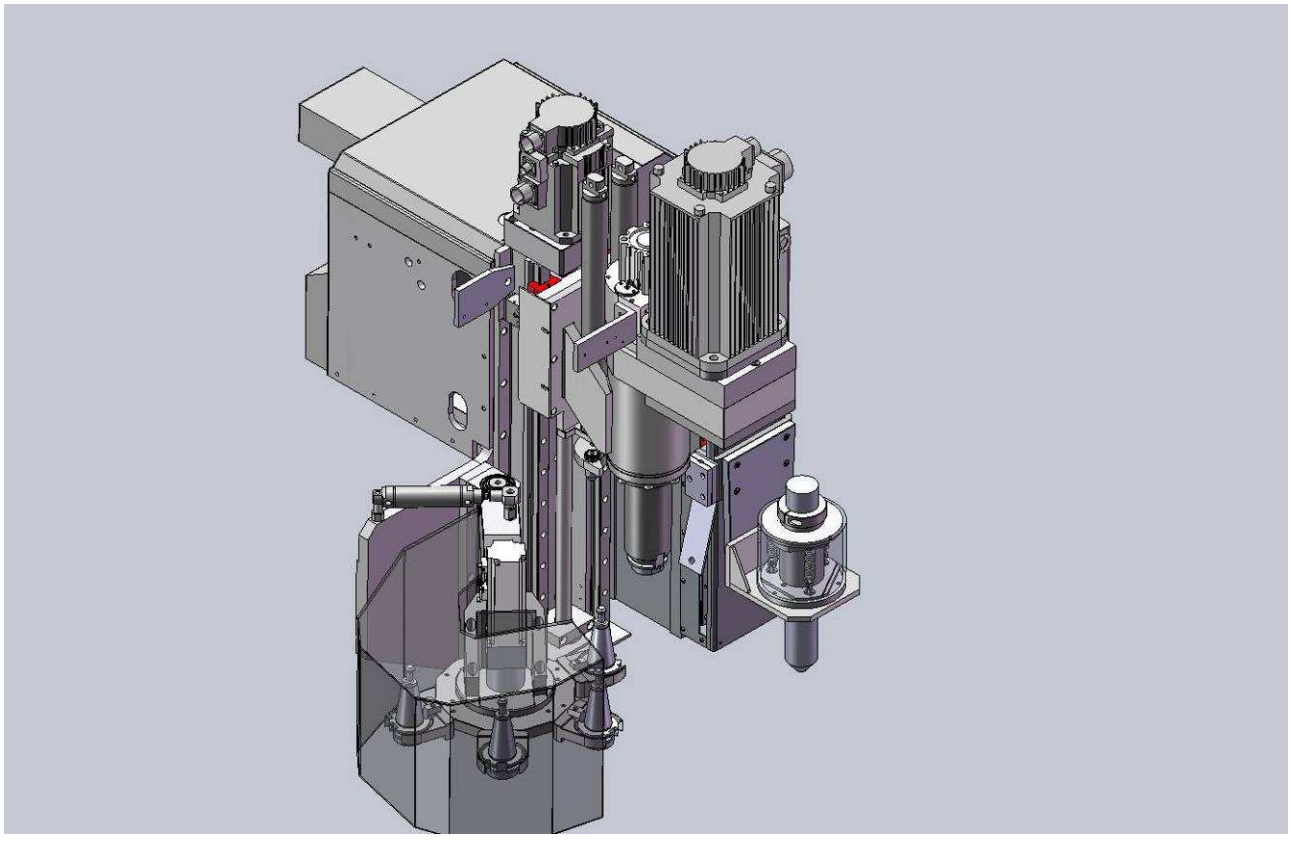
Sheet press cylinders

Tip blowing

Drill lubrication

Drill tool change

Tool gripper opening



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APPENDIX C

DESCRIPTION OF THE EVOLUTION BEVEL HEAD PLASMA CUTTING MACHINE WITH PIPE PROCESSING ACCESSORY

The machine keeps the original structure of the EVOLUTION model, with the suction workbench and cantilevered gantry end for working above the pipe accessory.

This accessory is in fact a machine which works in symbiosis with the EVOLUTION, shares the five working axes which move the plasma torch and is controlled by the same CNC.

The pipe to be processed is taken from a manually closed self-centring chuck and rest onto two rollers for the entire length. The chuck is controlled by a brushless motor which allows it the interpolations with the other axis of the machine according with the CNC program.

The pipe's diameter is set on the CNC and the rollers automatically hold it at the height calculated for this diameter. The pipe stands on the rollers, it is pushed against the chuck, which is closed manually. Work can now begin. The control panel allows you to select the type of process: pipe or sheet; this allows the CNC to set the values of the X and Y axis, which separates the two work areas, avoiding potential human error.

The BEVEL head enables angled cutting on both sheets and pipes.

In this case the more powerful CNC, ESAUTOMOTION S500 is used to ensure perfect execution of the various simultaneous interpolations.

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3. SOME SIGNIFICANT CUSTOMERS

3.1 MACHINE DESCRIPTION (Italian customer)

TWO-GANTRY EVOLUTION 2500x18000 SECTION CUTTING HEAD AND DRILLING UNIT

The mechanical and electrical requirements of this machine, such as the movement system, the anti collision device on the torch, etc, follow the standards of the EVOLUTION model.

Summary of the machine's layout.

The machine's single workbench is 2600 x 20800 mm, providing a usable cutting area of 2500 x 18000 for the two gantries. The two counter-positioned gantries; each fitted with plasma generators and controlled by two inter-connected CNCs operate on the same bench.
The machine has an additional workbench, for processing metal profiles of maximum dimensions 600 x 600 and length 18000 mm. This bench has two adjustable pneumatic grippers for locking the profiles and a motorised lifting system for raise them to the work area.
The profiles are processed using a single gantry, which might be called gantry A.
The two gantries cannot interfere with each other because of the dialogue between the two CNCs and an electromechanical anti-collision safety system, or with the fume aspiration system because it is split.

Gantry A

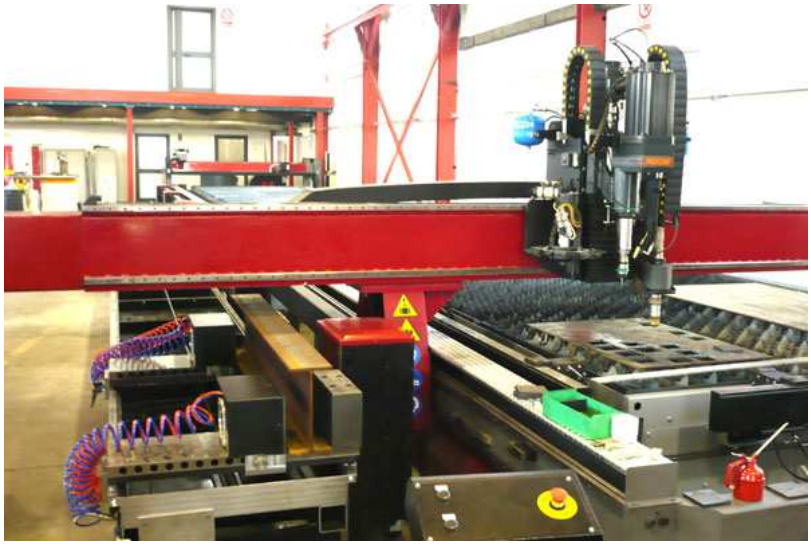
This gantry has a cutting unit supplied by a HYPERTHERM HPR260 generator and a drilling/ tapping unit, ISO40, fitted with an automatic, 6 position tool change system able to bore up to Ø36 ~~thickness~~ in stainless steel. The gantry has an cantilevered end section, which allows the cutting unit to work on pipes set on the unit parallel to the workbench. The CAD/CAM programme regulates this dual function.
Given that the profiles processed are typically laminated, provision has been made for the imperfect linearity which influences the processing, always quoted from the edge. To counter this, we used a RENISHAW hundredths measuring head, which scans the entire length of the section, memorises it and uses these values to correct the processing tolerance, always maintaining them to design.

Gantry B

Gantry B only has a cutting unit supplied by a HYPERTHERM HSD130 generator, which works on the main bench.

Aspiration and reduction of fumes and particles.

Given the length of the bench and the presence of two gantries which can move freely across the entire bench, the aspiration system was split, using two 8000 m³/hour aspiration filters, with very satisfactory results.



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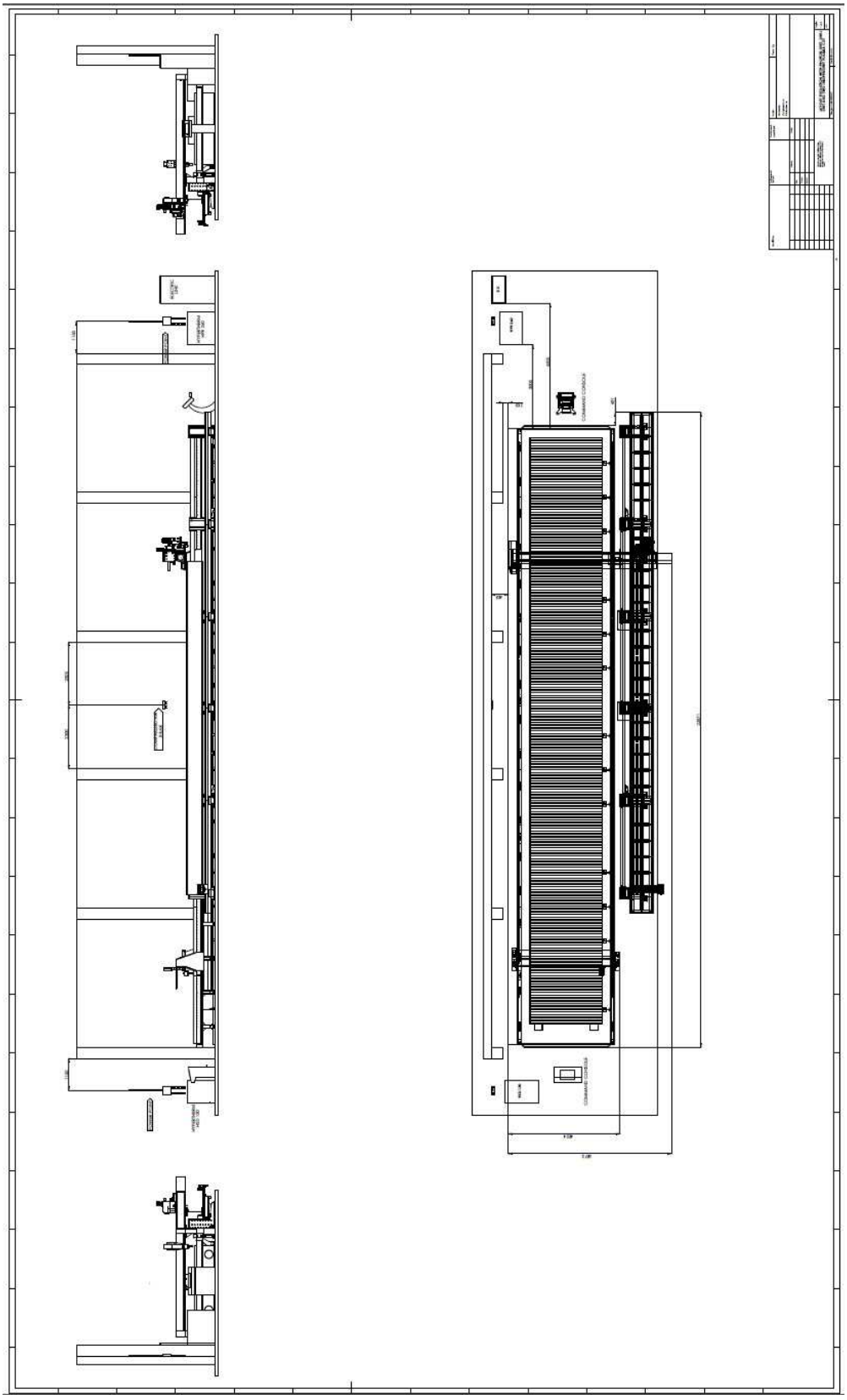


3.2 MACHINE DESCRIPTION (Italian customer)

EVOLUTION 3000x24000, 3 GANTRY, PLASMA AND OXY CUTTING AND DRILLING UNIT

The mechanical and electrical requirements of this machine, such as the movement system, the anti-collision device on the torch, etc, follow the standards of the EVOLUTION model.

Summary of the machine's layout.

The machine's workbench is 3200 x 27200 mm, providing a usable cutting area of 3000 x 24000 for each of the three gantries. Fume aspiration, given the length of the machine and the three independent gantries, is split at 1/3 and 2/3 of the length of the bench. The two aspiration/filtration units are connected via underground conduits.
The three independent gantries are controlled by independent, inter-communicating CNCs. There is also an electromechanical anti-collision safety system.

Gantry 1

This gantry is fitted with a plasma cutting unit and a ISO30–drilling tapping unit, fitted with an automatic, 12 position tool change.
The plasma source is HYPERTHERM HPR260, fitted with an automatic gas console.

Gantry 2

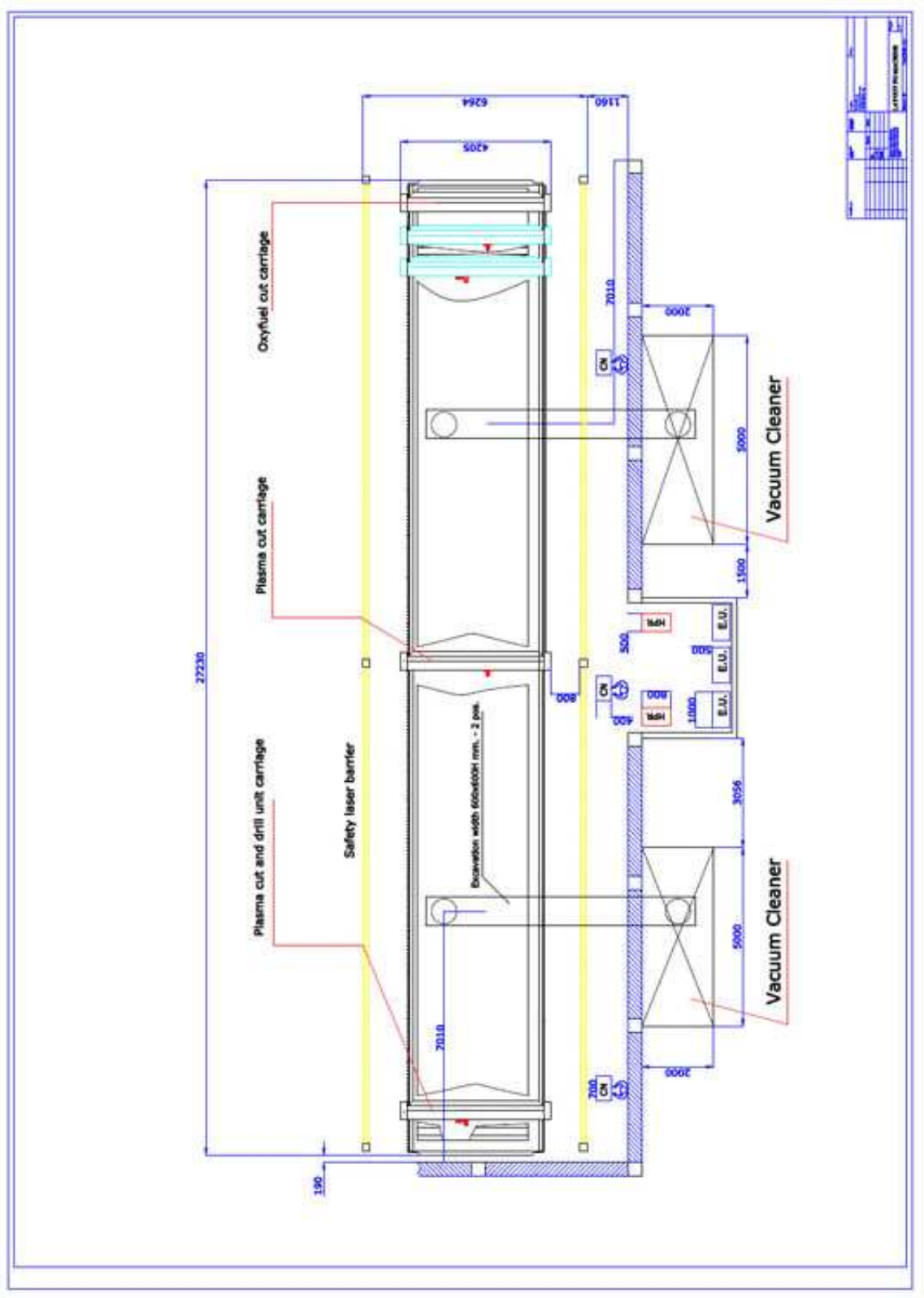
This gantry carries only a plasma cutting unit, again served by HYPERTHERM HPR260, with automatic gas console.

Gantry 3

Six oxy cutting torches are fitted on gantry 3, with automatic positioning and ignition.
There is an automatic gas console for controlling these torches, for adjusting the gas pressure during piercing, cutting and standby.

Aspiration and reduction of fumes and particles.

The two aspiration sockets are located around 1/3 and 2/3 of the length of the workbench, supplied via underground conduits and fitted with filters/aspirators, with a flow rate of 12000 m³/hour each and fitted with automatic residue discharge.


Oxyfuel cut carriage
Plasma cut carriage
Plasma cut and drill unit carriage
Safety laser barrier
Vacuum Cleaner
Vacuum Cleaner
E.U.
E.U.
E.U.
6264
1160
4205
7010
2000
5000
1500
500
800
400
1000
3056
700
190
22230

3.3 MACHINE DESCRIPTION (Italian customer)

EVOLUTION 2500x18000, "BEVEL" HEAD AND DRILLING UNIT

The mechanical and electrical requirements of this machine, such as the movement system, the anticollision device on the torch, etc, follow the standards of the EVOLUTION model.

Summary of the machine's layout.

The machine's workbench is 2600 x 18400 mm, providing a usable cutting area of 2500 x 18000. The loading/unloading area is on the right side, fume aspiration is a single system, with a connection on the rear part.

Gantry

The gantry is made up of three working units, mounted on the same transversal motorised axis, therefore the units operate individually so there is no need for separate motors:

1. BEVEL plasma cutting unit: 5 axis cutting with angle of ± 45°.
2. Drilling/tapping unit ISO40 for holes of diameter up to Ø36 mm in stainless steel, fitted with 6 position automatic tool change.
3. Oxy cutting unit equipped with automatic gas console, for cutting steel up to 300 mm thick.

The machine is fitted with an HPR260 HYPERTHERM plasma generator.

Aspiration and reduction of fumes and particles.

A single 12000 m³/hour aspirator is connected to the rear part of the machine, for highly satisfactory results.

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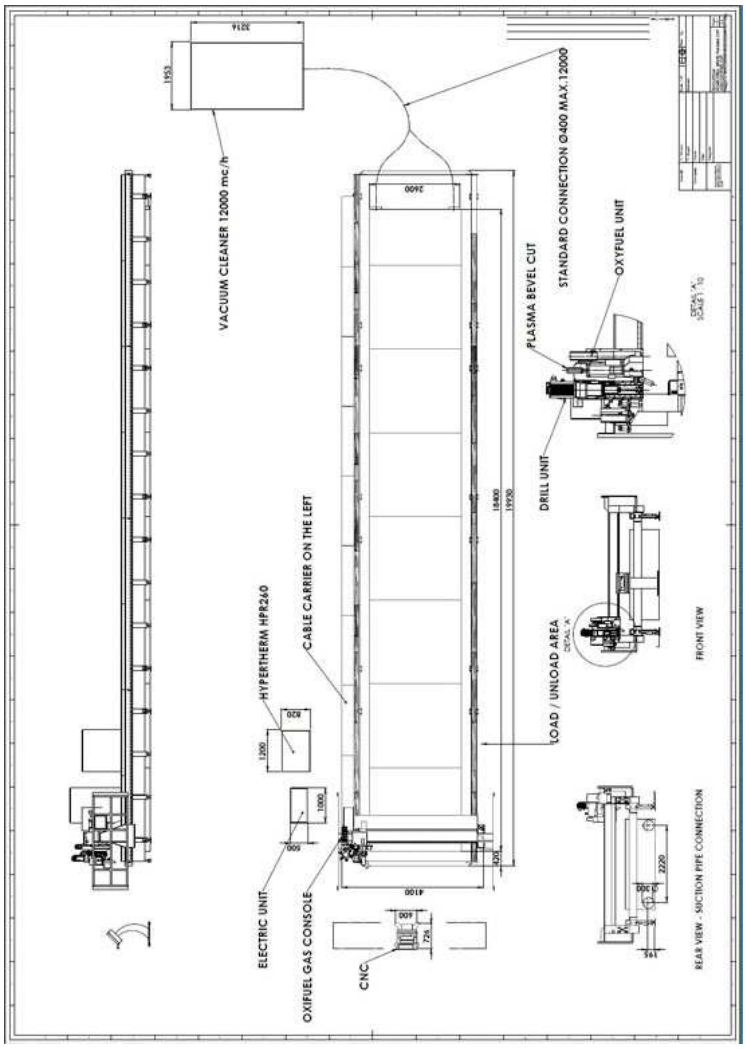

3.4.1 MACHINE DESCRIPTION (Russian Federation)

EVOLUTION 2500x6000, "BEVEL" HEAD AND PIPE CUTTING UNIT

The mechanical and electrical requirements of this machine, such as the movement system, the anti-collision device on the torch, etc, follow the standards of the EVOLUTION model.

Summary of the machine's layout.

The machine's workbench is 2600 x 6400 mm, providing a usable cutting area of 2500 x 6000. There is a single fume aspiration unit, with connection at the rear part.

Gantry

The gantry is fitted with a BEVEL plasma cutting unit: 5 axis cutting with angle of ± 45°.
The gantry has an cantilevered end section, which allows the cutting unit to work on pipes which set on the unit parallel to the workbench.

The machine is fitted with an HPR260 HYPERTHERM plasma generator.

Pipe processing unit

This unit comprises two main components:

- The spindle, which holds the pipe and rotates it as indicated by the CNC programme. The spindle can hold pipes up to Ø520 mm.
- Pipe lifting and support unit. This motorised unit lifts pipes up to Ø216 mm with a maximum length of 6000 mm to the centre of the spindle.
- The pipe support extends for its entire length, thereby allowing multiple pieces to be worked starting from a single pipe.

Aspiration and reduction of fumes and particles.

There is a dual suction socket, one on the rear part of the workbench and one at the centre of the pipe chuck, appropriately pierced.
A switch selects between aspiration on the sheet area or on the pipe area according to the work being carried out.

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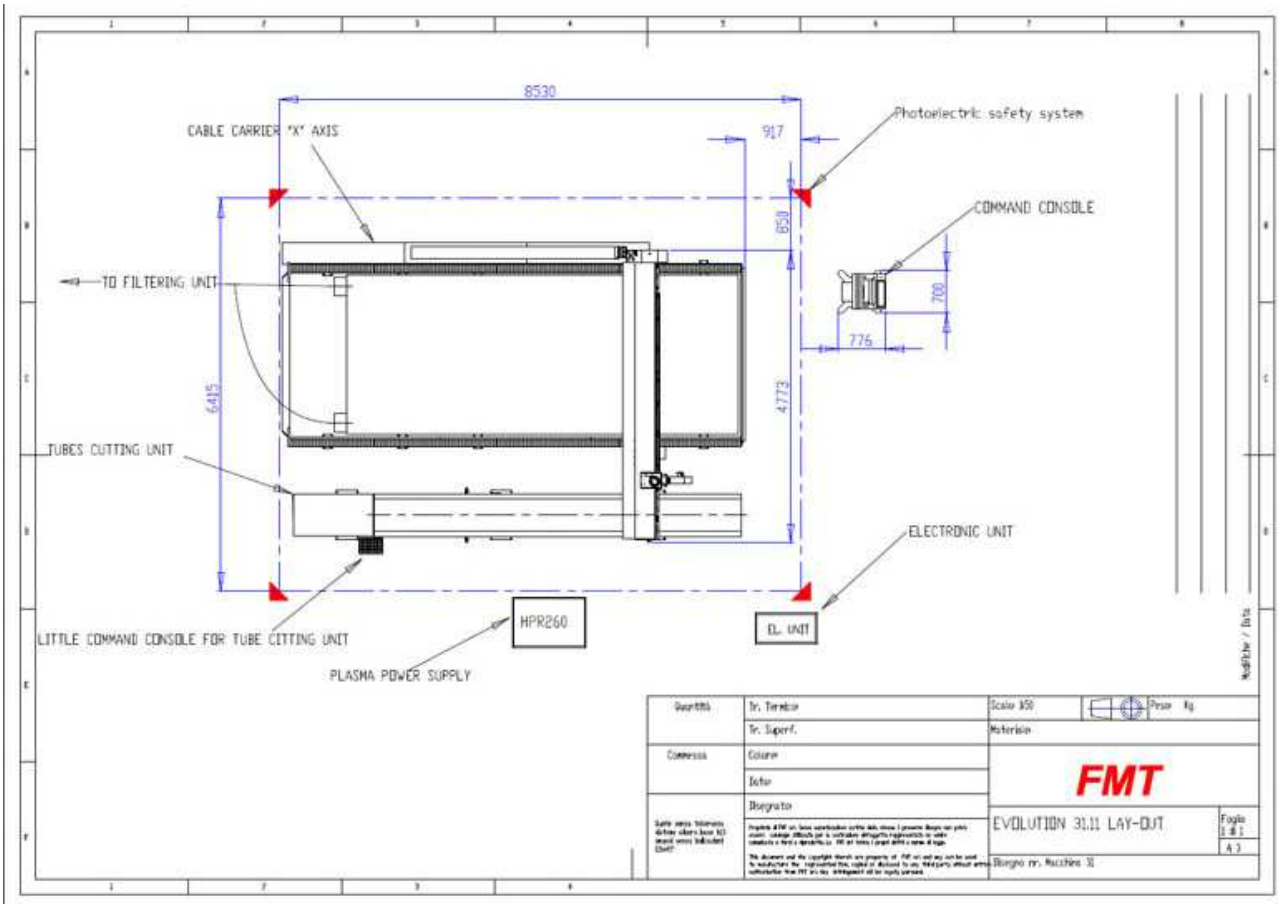

3.5. MACHINE DESCRIPTION (Brazilian customer)

EVOLUTION 2500x4000, "BEVEL" HEAD AND DRILLING UNIT

The mechanical and electrical requirements of this machine, such as the movement system, the anticollision device on the torch, etc, follow the standards of the EVOLUTION model.

Summary of the machine's layout.

The machine's workbench is 2600 x 4800 mm, providing a usable cutting area of 2500 x 4000. There is a single fume aspiration unit, with connection at the rear part.

Gantry

The carriage is equipped with two work units , mounted on the same motorized axis, because the two units always operate individually and therefore are not necessary distinct motorizations :

1 BEVEL plasma cutting unit: 5 axis cutting with angle of ± 45°.
2 Drilling/tapping unit ISO40 for holes of diameter up to Ø36 mm in stainless steel, fitted with 6 position automatic tool change.

The machine is fitted with an HPR260 HYPERTHERM plasma generator.

Aspiration and reduction of fumes and particles.

A single 9000 m³/hour aspirator is connected to the rear part of the machine, for highly satisfactory results.

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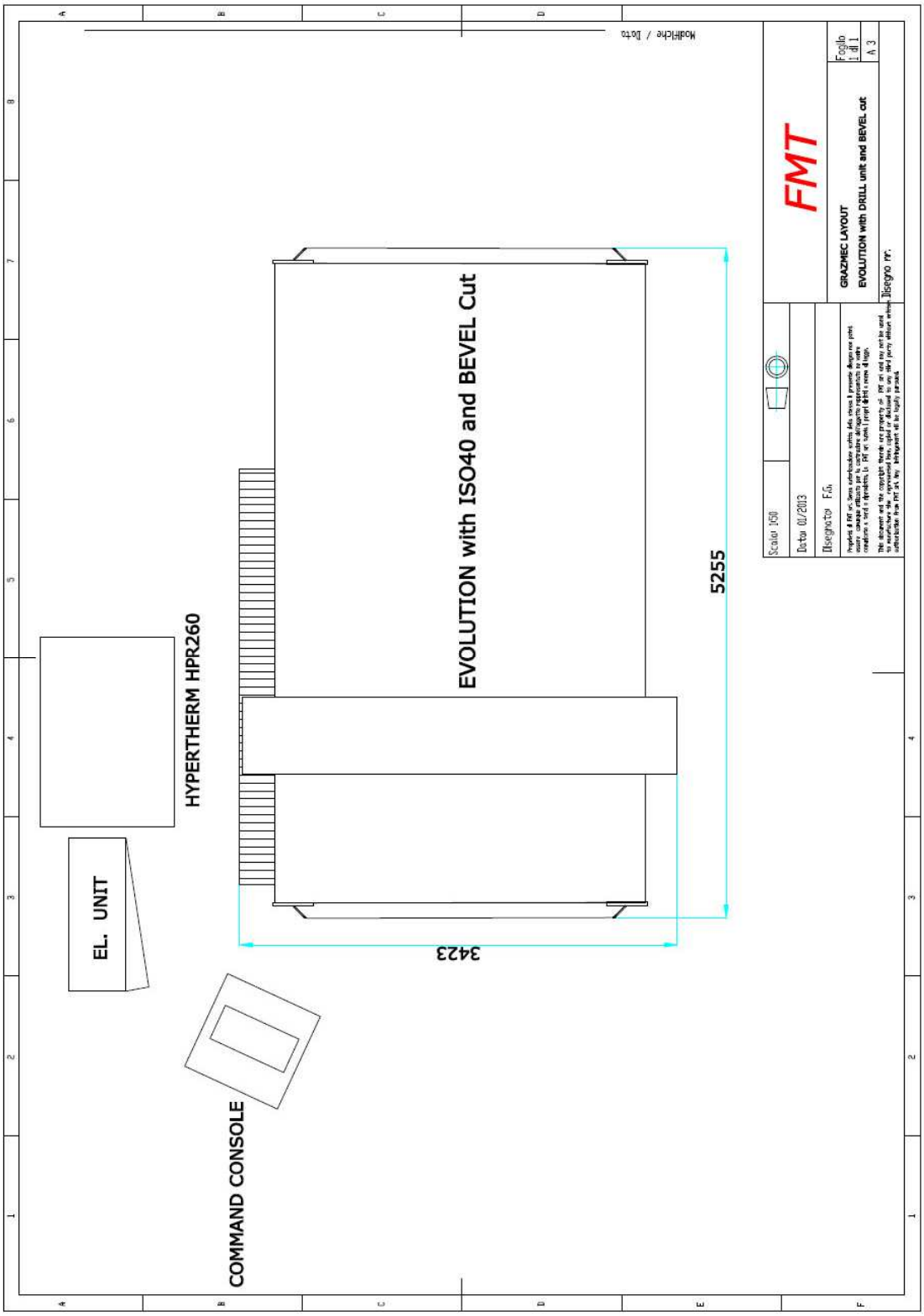

3.6. MACHINE DESCRIPTION (Italian customer)

EVOLUTION 2500x6000 BEVEL" HEAD"

The mechanical and electrical requirements of this machine, such as the movement system, the anticollision device on the torch, etc, follow the standards of the EVOLUTION model.

Summary of the machine's layout.

The machine's workbench is 2600 x 6400 mm, providing a usable cutting area of 2500 x 6000. There is a single fume aspiration unit, with connection at the rear part.

Gantry

The gantry is equiped with, a BEVEL plasma cutting unit: 5 axis, with angle of ± 45°.°.

Suction workbench

The Suction workbench is divided into sectors of 800 millimeters. with synchronized opening with the movement of the torch, to concentrate the ' suction in the cutting area

The machine is fitted with an CEBORA PLASMA PROF 254 HQC plasma generator.
.

Aspiration and reduction of fumes and particles.

A single 10000 m³/hour aspirator is connected to the rear part of the machine, for highly satisfactory results.

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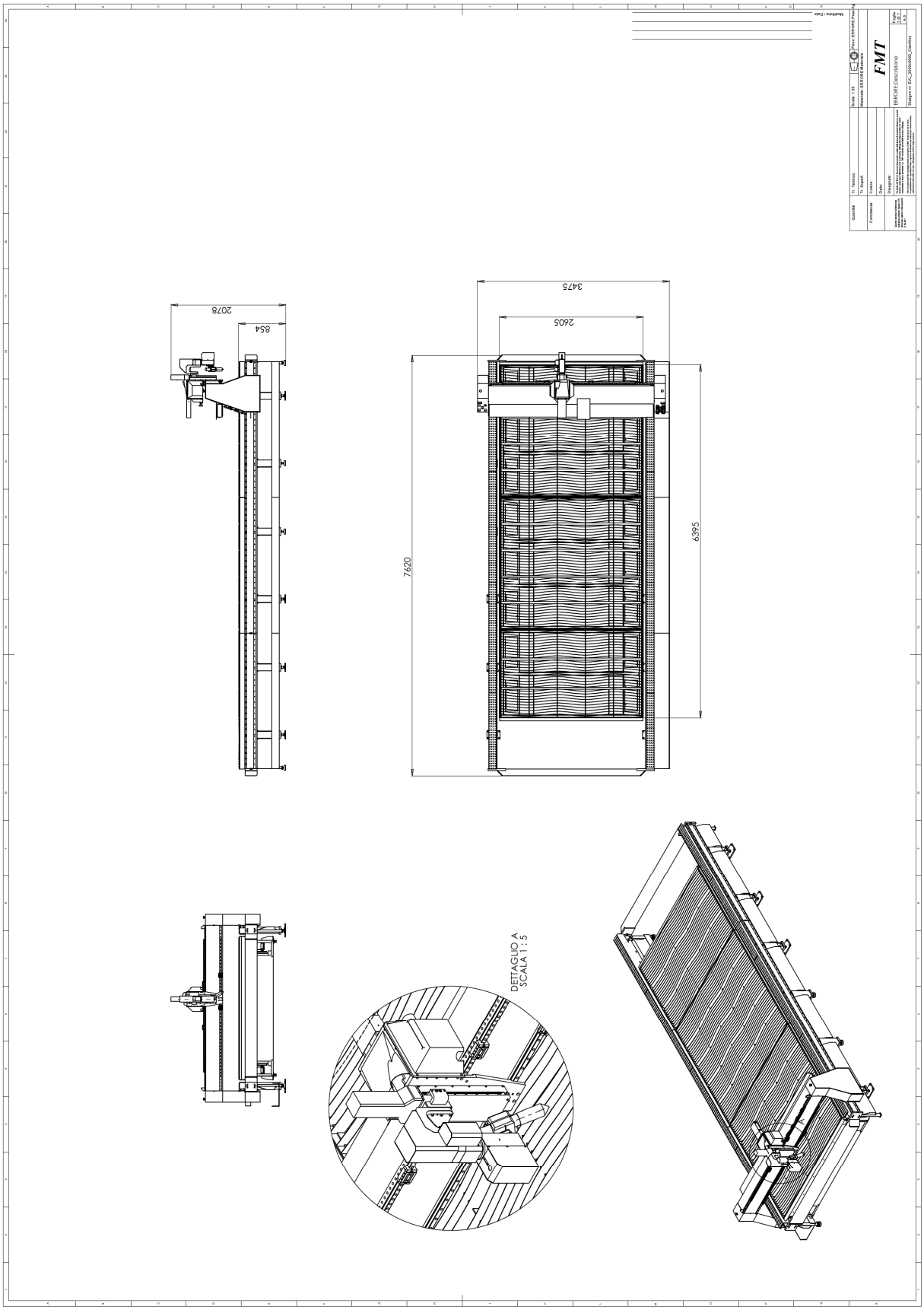

3.7. MACHINE DESCRIPTION (Italian customer)

MID 2000x6000 WITH SUCTION WORKBANCH

The mechanical and electrical requirements of this machine, such as the movement system, the anticollision device on the torch, etc, follow the standards of the MID model.

Descrizione sintetica del layout macchina.

The machine's workbench is 2600 x 6400 mm, providing a usable cutting area of 2500 x 6000. There is a single fume aspiration unit, with connection at the rear part. The loading / unloading area is on the right side of the machine

Gantry

The gantry is the MID type without variations

Suction workbench

The Suction workbench is divided into sectors of 800 millimeters. with synchronized opening with the movement of the torch, to concentrate the ' suction in the cutting area

The machine is fitted with an Hypertherm HPR 260 plasma generator.

Aspiration and reduction of fumes and particles.

A single 6000 m³/hour aspirator is connected to the rear part of the machine, for highly satisfactory results.

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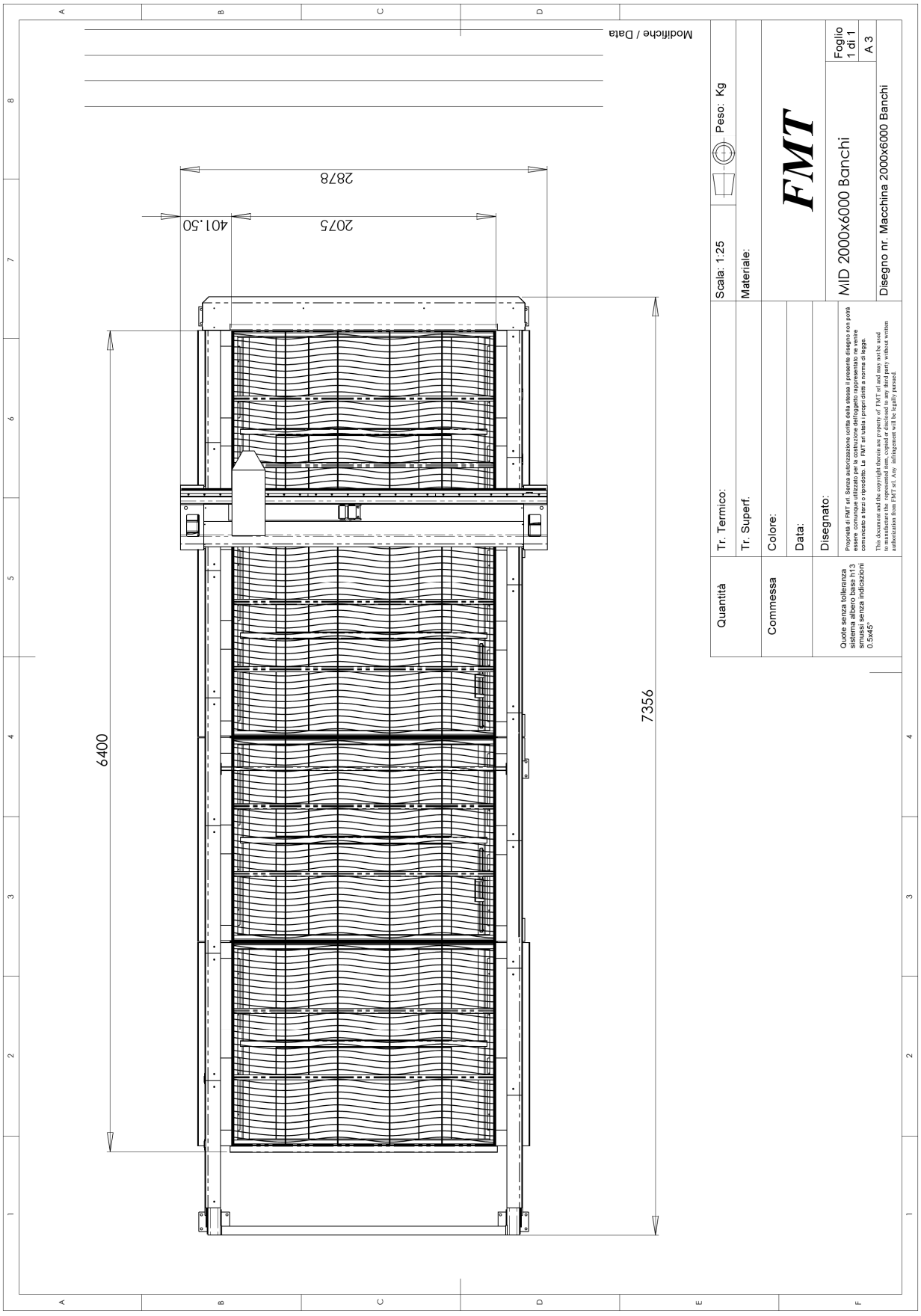

3.8 MACHINE DESCRIPTION (Italian customer)

EVOLUTION 2500x6000, "BEVEL" HEAD AND PIPE CUTTING UNIT

The mechanical and electrical requirements of this machine, such as the movement system, the anticollision device on the torch, etc, follow the standards of the EVOLUTION model.

Summary of the machine's layout.

The machine's workbench is 2600 x 6400 mm, providing a usable cutting area of 2500 x 6000. There is a single fume aspiration unit, with connection at the rear part.

Gantry

The gantry is fitted with a BEVEL plasma cutting unit: 5 axis cutting with angle of ± 45°.
The gantry has an overhanging end section, which allows the cutting unit to work on pipes which set on the unit parallel to the workbench.

The machine is fitted with an HPR260 HYPERTHERM plasma generator.

Pipe processing unit

This unit comprises two main components:

- The chuck, which holds the pipe and rotates it as indicated by the CNC programme. The chuck can hold pipes up to Ø520 mm.
- Pipe lifting and support unit. This motorised unit lifts pipes up to Ø216 mm with a maximum length of 6000 mm to the centre of the chuck.
  The pipe support extends for its entire length, thereby allowing multiple pieces to be worked starting from a single pipe.

Aspiration and reduction of fumes and particles.

There is a dual socket for aspiration, one on the rear part of the workbench and an appropriately bored one at the centre of the pipe chuck.
A switch selects between aspiration on the sheet area or on the pipe area according to the work being carried out.

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Gantry

The gantry is fitted with a BEVEL plasma cutting unit: 5 axis cutting with angle of ± 45°.
The gantry has an overhanging end section, which allows the cutting unit to work on pipes which set on the unit parallel to the workbench.

PIPE PROCESSING ACCESSORY

This uniti is equiped with a spindle able to handle pipes up to Ø 520, assembled on an highly accurate table SCOTTI. The spindle is moved by a brushless servomotor, wich allows the interpolation with oter axis of the machine.
The tube rests on a motorized roller conveyor with a servomotor for adjusting the height . Set the diameter to be processed , the CNC will automatically raises the tube to the correct height for to be perfectly aligned with the spindle .

The machine is fitted with an HPR260 HYPERTHERM plasma generator

Aspiration and reduction of fumes and particles.

There is a dual socket for aspiration, one on the rear part of the workbench and an appropriately bored one at the centre of the pipe chuck.
A switch selects between aspiration on the sheet area or on the pipe area according to the work being carried out.

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