SAF

OPTITOME, OXYTOME, PLASMATOME, CYBERTOME AND X-TOME

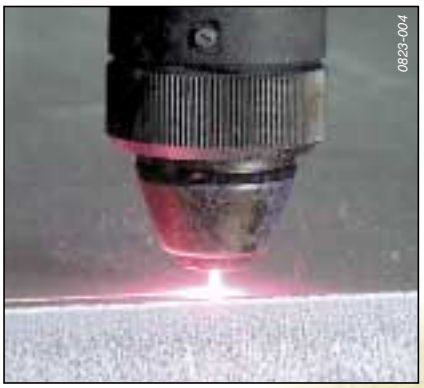
2003-298

www.saf-airliquide.com

AIR LIQUIDE WELDING

SAF multi-process automatic

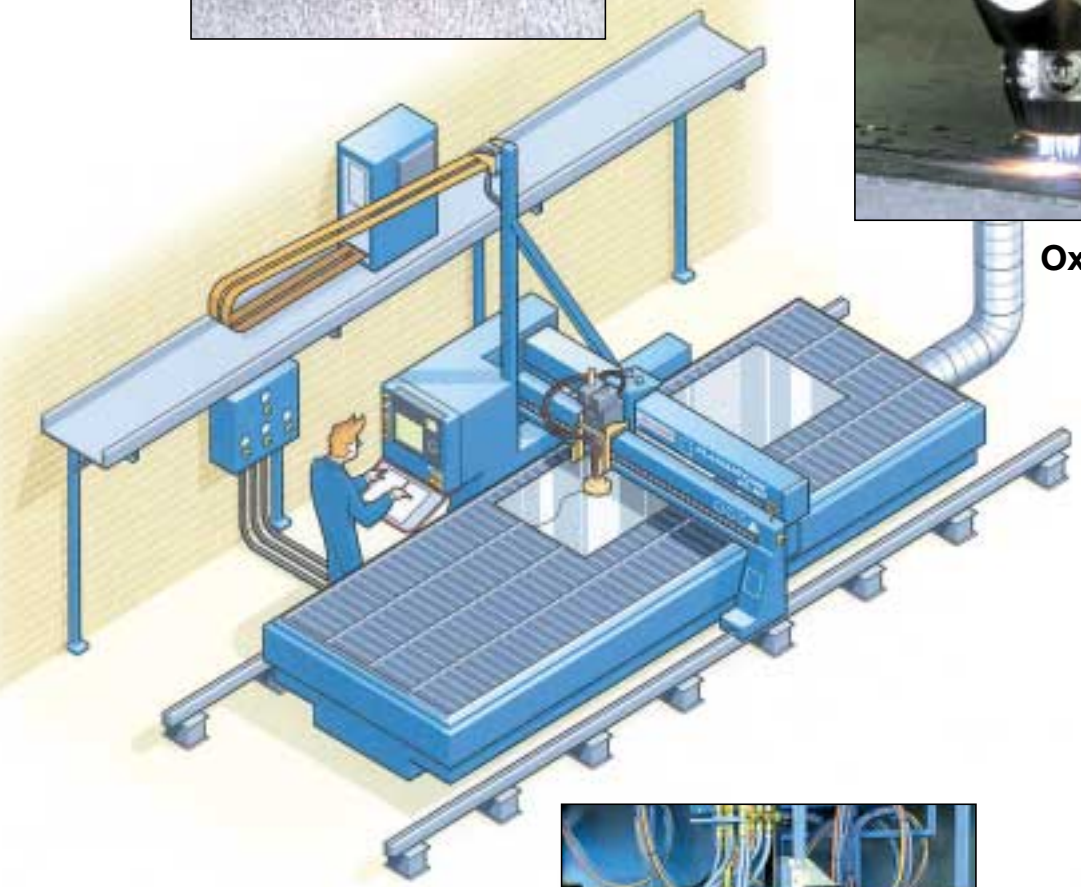
Where cutting of non-alloy and low-alloy steels, stainless steels and/or light alloys is concerned, SAF offers a range of products adapted to the requirements of various applications. By combining the processes and their numerous possibilities, SAF provides a wide choice of solutions and diversifications allowing you to target your investment to suit your needs.



Single or multi-torch

HP plasma cutting

Oxycutting



Marking

Plasma arc and oxycutting bevelling unit

PLASMATOME HP DIGITAL PROCESS
The alternative to laser cutting

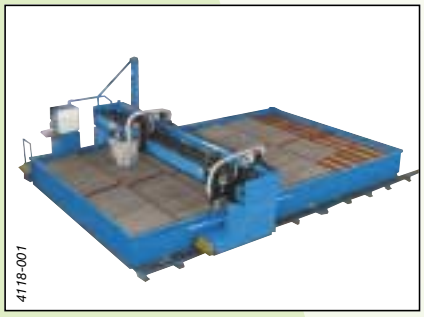
Quality and precision

Performance and versatility

OXYTOME

PLASMATOME

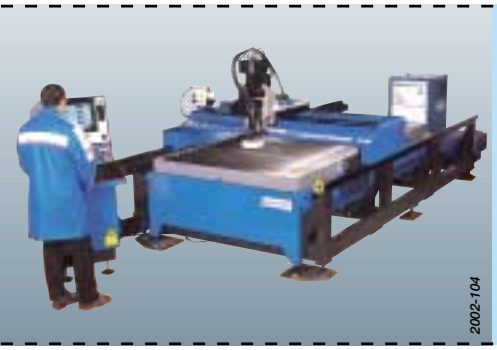
CYBERTOME



OPTITOME 15

Competitiveness and economy

OPTITOME 15



A numerically-controlled monoblock plasma-arc cutting machine, especially adapted to work with steel, stainless steel and aluminum for 1 500 x 3 000 mm sheet metal.
The main applications are for small-scale productions, metalwork, locksmithing, the fields of ductwork and air-moving

The OPTITOME 15

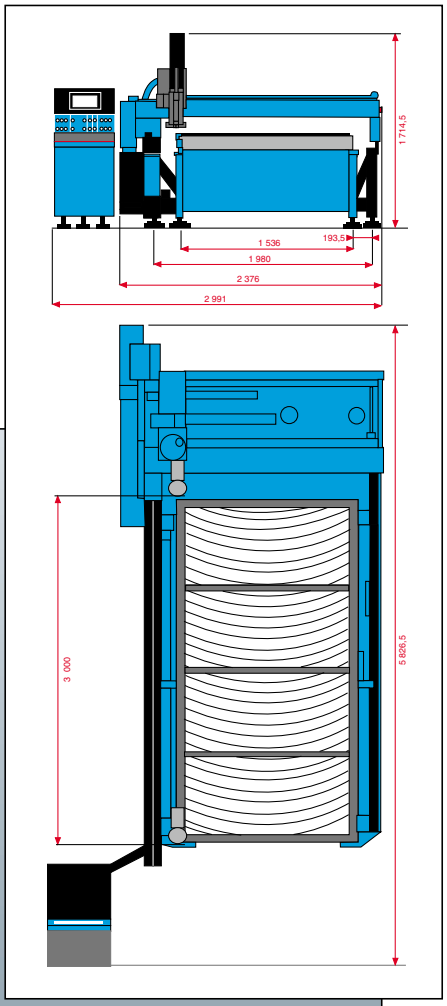
has all the qualities required for plasma-arc cutting, due to its design and the choice of techniques used in its manufacturing:

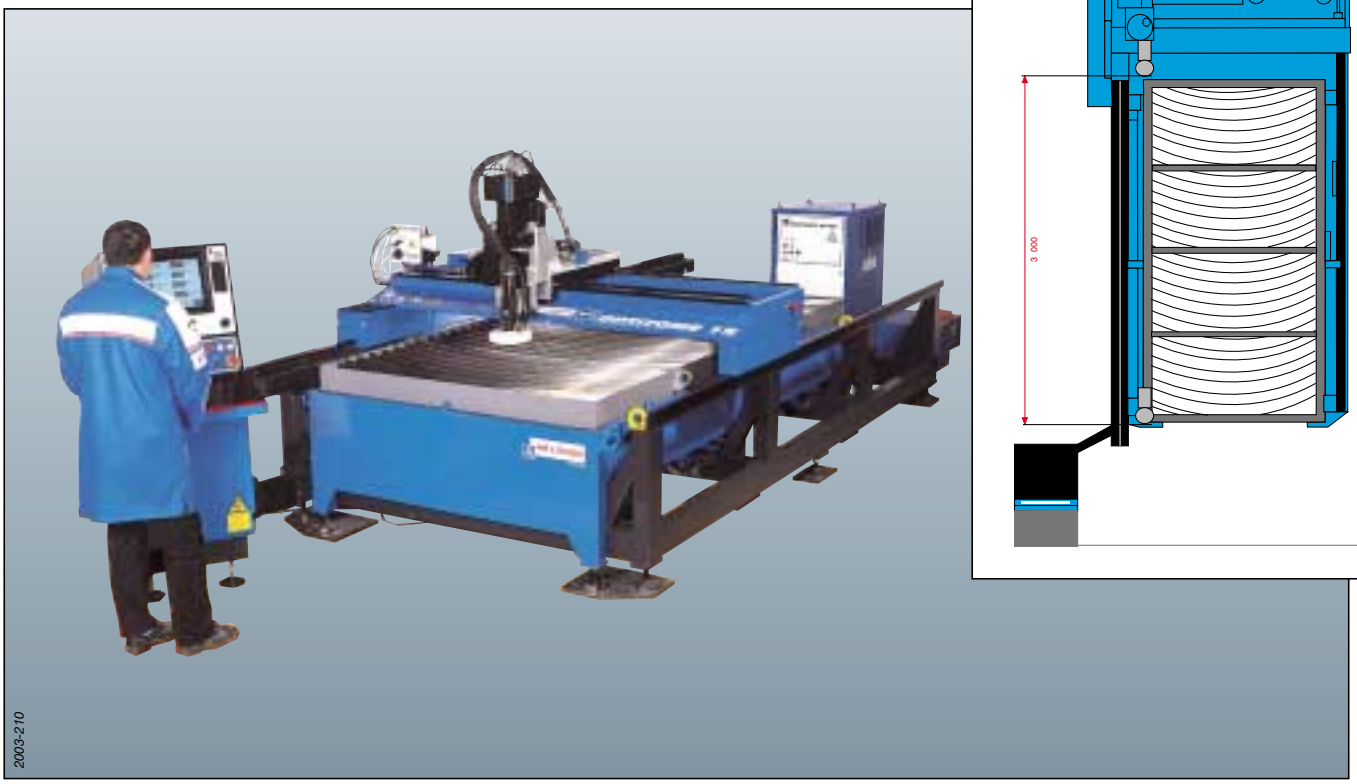
- **very rigid, light transverse beam for which a simple motorized drive-unit is largely sufficient,**
- **rugged and sturdily-built frame.**

Suction table

Ruggedly built, with optimized suction over the entire surface, the suction table is independent of the machine frame, thus eliminating risks of guides and rails going out of adjustment. Cleaning the solidified slag containers is made easier through the use of a removable frame. Possibility of a second frame in order to facilitate cut-part loading and unloading.

An especially-adapted sheet-metal backing strip is supplied with the oxyacetylene cutting option.





devices, air-conditioning, ventilation, steam-fitting, small and medium-size production workshops or intermittent production requirements.
The OPTITOME 15 is a monoblock machine, designed for easy handling, without disassembly; it can be installed quickly and easily.

Options

■ Optical read head

On request, the OPTITOME 15 equipped with a numerical control of the DIGISAF 2.5+ type, can also (option) receive an optical read head for digitalizing existing drawings.

■ Marking

As an option, the OPTITOME 15 can take 2 different types of markers:

- **"Wen" marker standard marking**

This pneumatic vibrator engraves sheet metal by modifying the surface condition very slightly by scoring it.

- **felt marking**

This marker uses felt which has been especially selected for its strength.
It operates by gravity and does not alter the surface of the material. It should be used for galvanized, aluminum, stainless and black painted steels, depending on the quality of the surface condition.

■ "Impact" torch

This system ensures torch safety and protects the environment from arc emissions. Its fastening method, which is independent of the torch, ensures its perpendicularity after triggering.

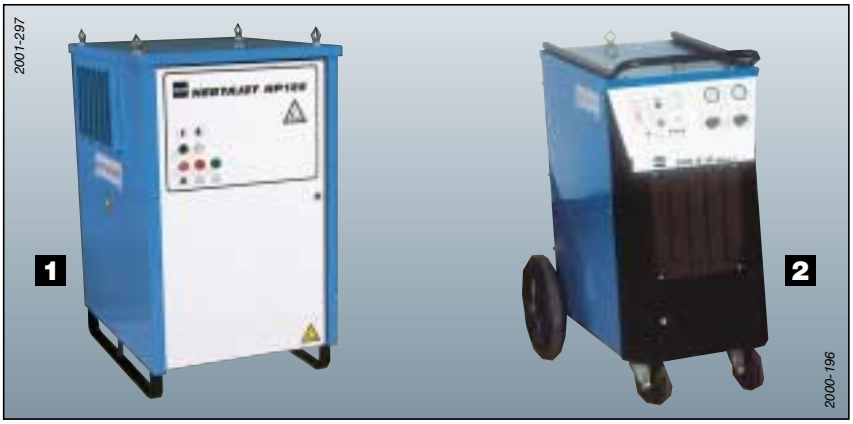
■ Oxyacetylene cutting

To increase the versatility of the OPTITOME 15, this machine can be equipped with an oxyacetylene cutting option.
This option mainly includes:

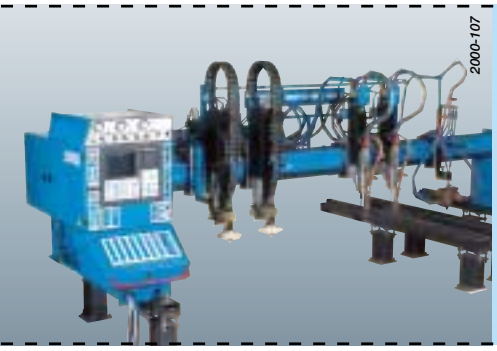
- 1 blowpipe
- 1 gas pressure adjustment table
- 1 blowpipe support
- 1 suction table additional item,
- 1 gradual arcing along with heating / overheating adjustments.

The plasma equipments with two possible configurations

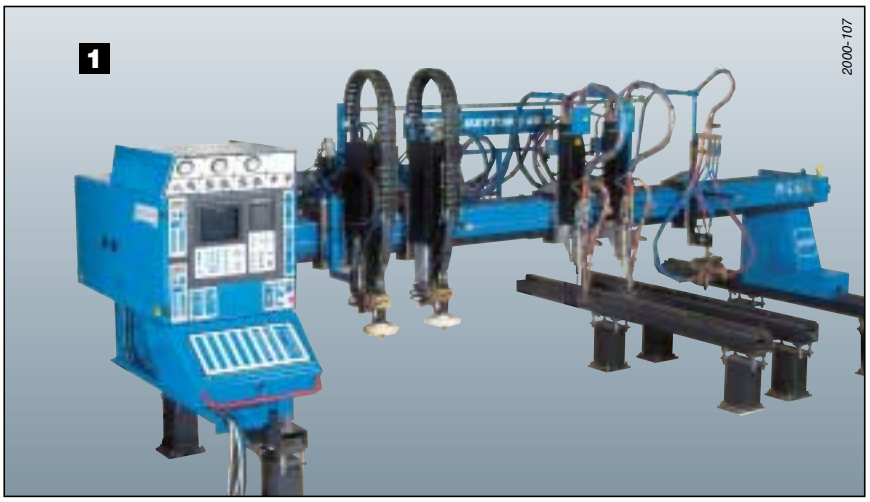
1 NERTAJET HP 125 **2 ZIP 5.0 and CPM 15**



OXYTOME/OXYTOME E



The OXYTOME range of oxycutting or plasma cutting machines combines the qualities necessary for you to choose between oxycutting, plasma arc cutting and marking processes.



- **Choose the version:**
  1 20 - 25 - 30 - 40
  2 20E - 25E - 30E - 40E
  to suit the degree of automation required for your applications. Dual-motorization rationalizes your use of NERTAJET HP plasma cutting.
- A gas control panel (standard on the E versions) enables the operator to control the gases at all times.
- Each torch has a solenoid valve for fast oxygen cut-off.
- Rational gas distribution avoids the need to vary the settings on each torch.
- Electric tool-holder with 150 mm travel reduces operator interventions, limiting risk of vertical misalignment.
- Plate detection (on E versions) automates the tool-holder(s) and protects the igniter when starting a cut in the middle of a plate.
- Capacitive sensing (on E versions) automates the tool-holder(s) and continuously monitors the cutting height.

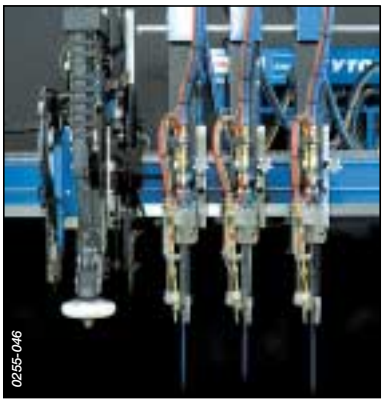
The capacitive sensor and the igniter retract when starting a cut in the middle of a plate and are thus protected. With the tool-holder in the raised position, the capacitive probe provides torch shock protection during high-speed movement.

- Narrow-strip cutting system can cut strips from 80 to 155 mm wide with independent torch adjustment for improved quality and greater flexibility.

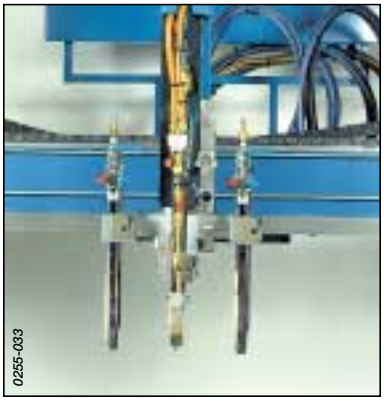
Options

Specific options for the OXYTOME and OXYTOME E ranges.
The OXYTOME range provides a multitude of options that offer the different cutting professions a wide variety of adaptation possibilities.

■ Electrical ignition of torches



■ System for cutting narrow strips



For cutting strips from 80 to 155 mm wide using independent torches for improved cutting quality.

■ Gas control panel

■ Tool-holder

■ V X K Straight line bevelling unit

For bevelling along the machine axes with mechanical sensing.

■ Oxycutting equipment

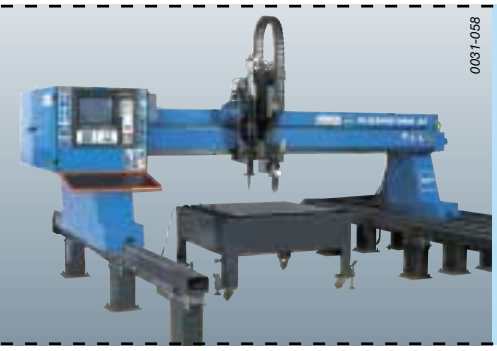
The machines are designed to receive six torches as standard. As an option, up to eight torches can be fitted.

Options for the OXYTOME E range

■ Tool-holder PO 150 E with sensor

■ Tool-holder PO 150 E with detector

PLASMATOME 20/25/30/40 : perfect



The PLASMATOME range for NERTAJET HP plasma cutting combine all the qualities needed to implement the plasma arc process.

Equipped with a PO 251 tool-holder with 250 mm motorized travel, these machines are suitable for all applications: from the thinnest materials (0.5 mm) to the thickest (150 mm) which can be cut by the plasma arc process. The basic concept is a multipurpose one, with an extensive range of choices:

■ **of installations,**
from the single-torch NERTAJET HP 125 to the two-torch NERTAJET HP 600,

■ **of materials,**
from 0.5 mm non-alloyed or low-alloy steels to 150 mm light alloys or 130 mm stainless steels.

■ **of uses,**
from dry plasma arc cutting to immersed plasma arc cutting.

Main features:

- dual motorization on the longitudinal axis for consistent quality, whatever the speed,
- an appropriate speed range from 0 to 10 m/min.,
- a single supplier for the complete equipment
  - machine, power source, torch, tool-holder, height control system,
- efficient options for marking plate and environmental protection,
- torch shock protection system on all NERTAJET HP versions,
- single- or multi-torch for increased productivity.

implentation of the plasma arc process.

Options and accessories

■ Tool-holder

The PO 251 is a rugged assembly with 250 mm motorized travel, enabling cutting of materials under all conditions (*immersed or non-immersed), in complete safety.
The torch shock protection system mounted on a parallelogram can be retracted from the control panel.
The operator can therefore view the arc and monitor cutting quality without harming the environment.
Electronic sensor ensures a constant distance between the nozzle and the plate, whatever the cutting speed and without contact with the workpiece.

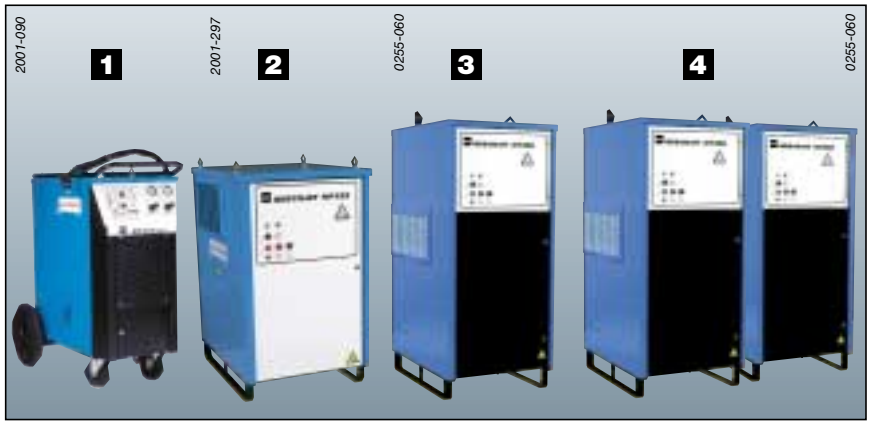
■ Control panel

Includes all functions for remote control of the process.
The plasma cycle unit manages process control, the interface with the numerical controller and control of the height sensing system, absolutely essential to guarantee cutting quality and long lifetime life of consumables.

Generators

DC electrical power supply generators are used. They are equipped with chopper-type electronic devices that allow the generators to react simultaneously with the cutting arc to ensure total current stability.

Generator	Current range	Torch
1 ZIP 5.0	20 to 150 A	CPM 15
2 HP 125	15 to 120 A	OCP 150
3 HP 300	30 to 300 A	CPM 300
4 HP 600*	30 to 600 A	CPM 720



* Up to 720 A available on request.

Common options

The OXYTOME and PLASMATOME ranges provide a multitude of options that offer the different cutting professions a wide variety of adaptation possibilities.

■ Automatic indexing

The automatic indexing option facilitates generalization of multi-torch applications.
This option uses the numerical controller to control the distance between the torches.
The machine can therefore be programmed to cut identical parts or one-off parts without any intervention from the operator.
This option also enables entirely automated use of machine equipped

with two identical or different installations, one set up for quality cutting and the other for productivity cutting.

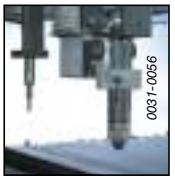
■ Mechanical drill

The rugged design of PLASMATOME and OXYTOME machines enables

an optional mechanical piercing head to be fitted.
This system uses a pneumatic drill mounted on a pneumatic slide with a travel of 250 mm. A pressing system holds the plate during piercing.
The maximum piercing diameter is 6 mm with a drill or centring bit.
Note: consult SAF for more information on marking and drilling.

■ Mechanical torch shock

The use of high-power plasma arc



installations requires the utilisation of appropriate torch shock protection. SAF has developped a system operating in all positions and under all circumstances (immersed or non-immersed cutting) which guarantees that the torch returns to its perpendicular position after the safety system has been tripped.

■ Fume extraction

An extractor can be fitted (as an option) above the torch to capture fumes, especially during immersed cutting.
The extractor hood is fitted with a torch shock protection system.
A fume collector with seal is mounted on the machine.
A second collector can be installed along the track to evacuate fumes to the outside.

■ Reading head

Digitization of drawings by the numerical controller (with DIGISAF 2.5+ and 510).

■ Emergency stop cable protection

Triggers an "emergency stop"

from anywhere in the operating area of the machine.
There is a cable at the front and at the rear of the machine.

■ Zero origin (not illustrated)

References all programs to an origin point.

■ Anti-collision

(not illustrated)
Used if two or more machines travel on the same track.

■ Supply harness installations (not illustrated)

Supply harness systems can be installed:
• overhead,
• alongside the slave rail.
In both cases the machine is equipped with a dual motorization system.

■ Cantilever beam

Allows side cutting.

■ Other options

On request.

The pneumatic, marker crayon, felt-tip and plasma arc markers can also be fitted to PLASMATOME machines.

Marking

Five markers are available, depending on the application:

■ Powder marking

Deposits grey zinc powder using an oxy/gas flame (usable only with the gas control panel).

■ Felt-tip marking

Gravity-loaded felt-tip for marking stainless steels and light alloys. The markings can be erased and do not alter the surface.

■ Plasma arc marking

Low-power plasma arc for engraving or tracing on all materials. Varying the power of the arc adjusts the marking depth.

This installation employs height control based on the arc voltage.

■ Pneumatic marking

For punching or engraving plates. The compressed air pressure and the speed are variable to adjust the depth and the spacing of the punch points.

Preferable for plates with thickness greater than 5 mm.

■ HF marker crayon

This pneumatic vibrator engraves the plate by etching the surface.

Preferable for thin plate.

Plasma arc equipment

1 CPM 15 torch

For ZIP 5.0 installation.

2 OCP 150 torch

For NERTAJET HP 125 installation. Single-torch and two-torch versions.

3 CPM 300, CPM 720 torch

For NERTAJET HP 300 and NERTAJET HP 600 torch installation.
Single torch and two-torch versions.

4 Plasma bevelling system

This system uses a plasma arc torch to bevel along the axes.
Consult SAF for more information on this option.

PLASMATOME HP DIGITAL PROCESS

Alternative to the laser cutting, the high performance plasma cutting with the PLASMATOME HP range is the economic solution for high-precision plasma arc cutting of non-alloyed steel, stainless steel and light alloy, in particular for thicknesses ranging from 0.5 to 25 mm.

The PLASMATOME 20 HP and PLASMATOME 25 HP fully exploit all the capabilities of NERTAJET HP installations:

- brushless motor drive system,
- transverse guidance by recirculating ball bearings and guides,
- suitable working height (800 mm),
- high-inertia longitudinal track,
- high-performance numerical controllers.

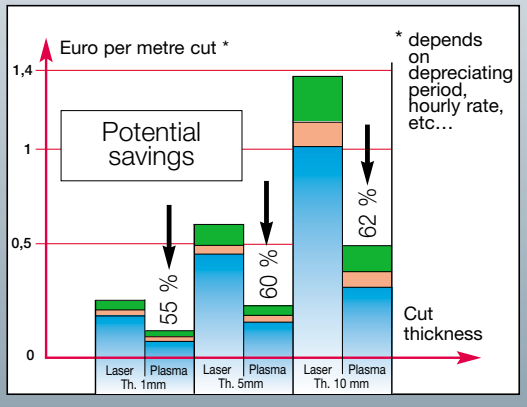
The combination of these techniques brings to NERTAJET HP processes:

- perfect control of trajectories,
- perfect match between the drive movements of the machine and the plasma process,
- ongoing search for optimum conditions for very good cutting quality,
- positional accuracy of +/- 0,1 mm.

Economic balance

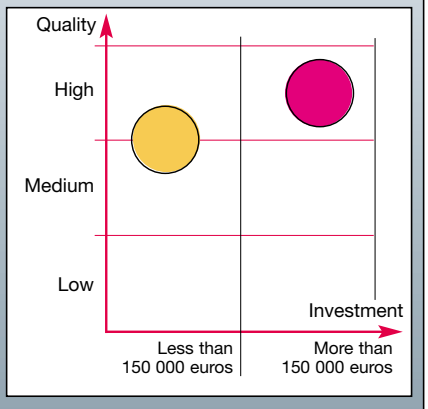
The NERTAJET HP plasma arc cutting process lies between oxycutting and laser cutting processes in terms of machine investment, range of thicknesses to be cut and cutting quality. However, its fast cutting speeds yield the lowest operating costs (Euro per metre cut).

Comparative economic balance, plasma arc process/laser process



Key:
- Consumables
- Programming + labour
- Equipment costs

Quality/investment position



Key :
- Laser
- Plasma

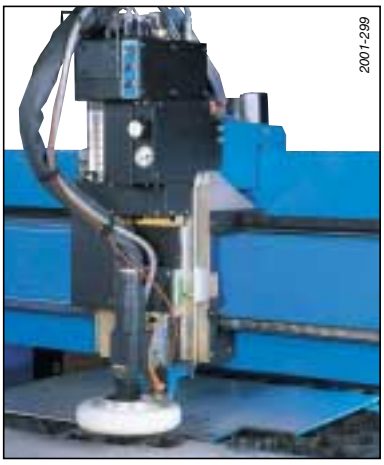
■ NERTAJET HP125 installation with OCP 150 torch

Multiprocess oxygen, argon/hydrogen, nitrogen water vortex, annular gas, DUALGAZ installation with:

- torch with removable and interchangeable tip and without HF striking,
- current range adjustable from 15 to 120 Amps,
- moderate noise level in operation.

■ POC 101 tool-holder

100 mm motorized travel, torch shock system also assuring visual protection, its guidance concept and reaction speeds adapted to NERTAJET HP plasma cutting, all these features make this tool-holder the instrument of choice for controlling the height of the OCP 150 torch.
Its electronic sensing system measures the arc voltage to guarantee the best position throughout the cycle for optimum cutting quality.



■ HPC DIGITAL PROCESS Control panel

This control panel supports all the machine's functional controls. It can be positioned as required to suit the type of machine used. On PLASMATOME HP models, it comes as a stand-alone unit independent of machine movements. On PLASMATOME and OXYTOME type models, it is a built-in, pivoting unit.
For further details, see sales leaflet n° 1515-4240.

DIGISAF: numerical controllers

The development of microprocessors has made it possible to group together in a small space all of the components of a numerical controller. Integrating perfectly into SAF machines, the DIGISAF 2.5+, 100, 510 or 610 offers you even better accuracy, productivity and return on investment.

DIGISAF 2.5+

Contains 50 standard shapes and can be connected to a programming software via a serial link.

DIGISAF 100

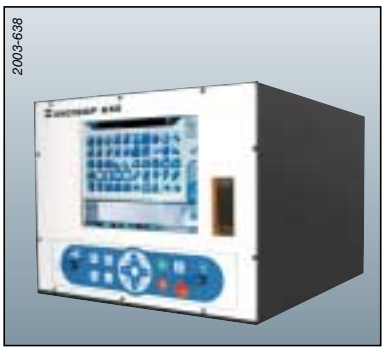
Numerical controller with WINDOWS type operation user interface and DIGISAF operating mode, employing algorithms derived from research into high-speed machine tools. A full multitasking system, with an intuitive mode of operation thanks to its simple ergonomics, and multiple programming possibilities such as library of 50 standard shapes, ISO editor programming with integrated mini-CAD.

DIGISAF 510

Numerical controller based on an open architecture PC with WINDOWS NT-based movement control software for improved performance and in particular very high performance in multitasking operations. A touch-sensitive 15" LCD flat screen provides access to a user-friendly man-machine interface and the entire controller is built around a Pentium processor.
Using 50 standard shapes and the most modern modes of communication, the DIGISAF 510 is a numerical controller perfectly suited to automatic cutting applications.

DIGISAF 610

This numerical controller developed under WINDOWS 2000 integrates a sophisticated path algorithm that ensures dynamic, real-time trajectory and I/O control.
The high-performance, user-friendly, man-machine interface integrates a high-quality, touch-sensitive screen giving access to the main control functions of the numerically controlled cutting machines.
Management of the 50 standard shapes library, and in particular the innovative and diversified I/O management system enhances its performances. The DIGISAF 610 is also one of the key functions in thermal cutting processes. The DIGISAF 610 comes with a high-performance graphics screen.



HPC DIGITAL PROCESS

This new control concept for plasma cutting machines has been specially created for easier workshop integration of modern, state-of-the-art machines implementing the latest features in plasma cutting of all electrically conductive materials, non-alloy and low-alloy steels, stainless steels and light alloys.

HPC DIGITAL PROCESS operates under WINDOWS 2000 installed on an industrial computer. The system features:

- **numeric control**
- **process control**
- **a Human Machine Interface**
- **a touch screen**
- **a control console for all start-up and emergency stop operations.**

■ Easier workshop integration means:

- benefiting from a tool adapted to your various cutting jobs, specially designed as a utilization support for the operator,
- simple implementation of the plasma cutting machine,
- benefiting from a modern, innovative and user-friendly design.

SAF's HPC DIGITAL PROCESS provides an intuitive and interactive means of accessing all our plasma process expertise as well as integrating and backing up your own expertise for retrieval by various users.
This system is organized and structured to be operated by your company personnel even if they do not have in-depth understanding of the plasma process.

■ High performance management

Quality cutting requires fast and efficient control of paths and programs and multitasking capability. This function is provided by the numeric control part of the HPC DIGITAL PROCESS.

■ Applications

The HPC DIGITAL PROCESS system is used mainly with PLASMATOME and PLASMATOME HP cutting machines.
This equipment controls NERTAJET HP 125 plasma cutting units fitted with OCP 150 torches operating without high frequency, and featuring a detachable tip that can be changed to suit the process.
The HPC DIGITAL PROCESS can also be used with gantry machines of the OXYTOME and OXYTOME E range if they are equipped with a NERTAJET HP 125 unit. In this case, the plasma is controlled according to the HPC DIGITAL PROCESS mode and oxycutting operates in the conventional manner.
All cutting machine users will benefit from the HPC DIGITAL PROCESS.
The purpose of this system is to store your parameters, assist your operators, enable use by personnel without special training and increase the availability of your installations.

For more information, please see the sales n° leaflet 1515-4241.

OXYSAF/ZIP 5.0

• OXYSAF: a range of equipment suited to all semi-automatic and automatic oxycutting applications. OXYSAF blowtorches and tips can operate with all types of fuel gases: acetylene, propane, natural gas, tetrene, oxygen, etc.

• ZIP 5.0: a multi-gas plasma cutting system.

OXYSAF oxycutting equipment (blowtorch + tips)

1 Standard equipment

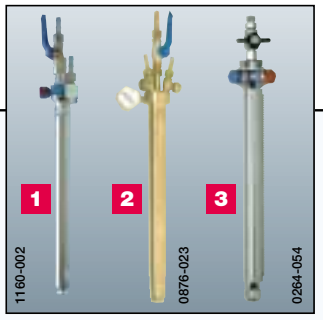
OXYSAF G1 and OXYSAF IC blowtorches are designed to operate with mixed gas cutting heads. Rugged and reliable, they ensure high-quality work on plate thicknesses ranging from 3 to 300 mm.

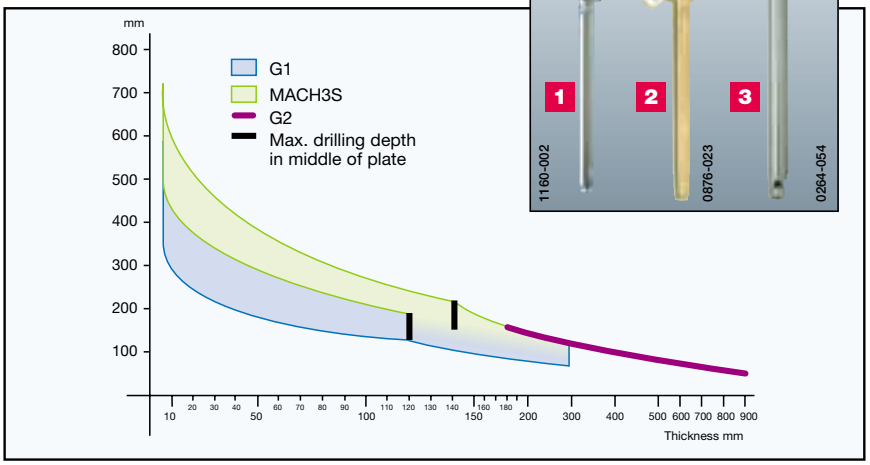
2 Thick plates

OXYSAF G2 is designed to work on plate thicknesses of up to 900 mm. Thanks to its cooling system, it is capable of operating in the most extreme conditions.

3 MACH 3S equipment

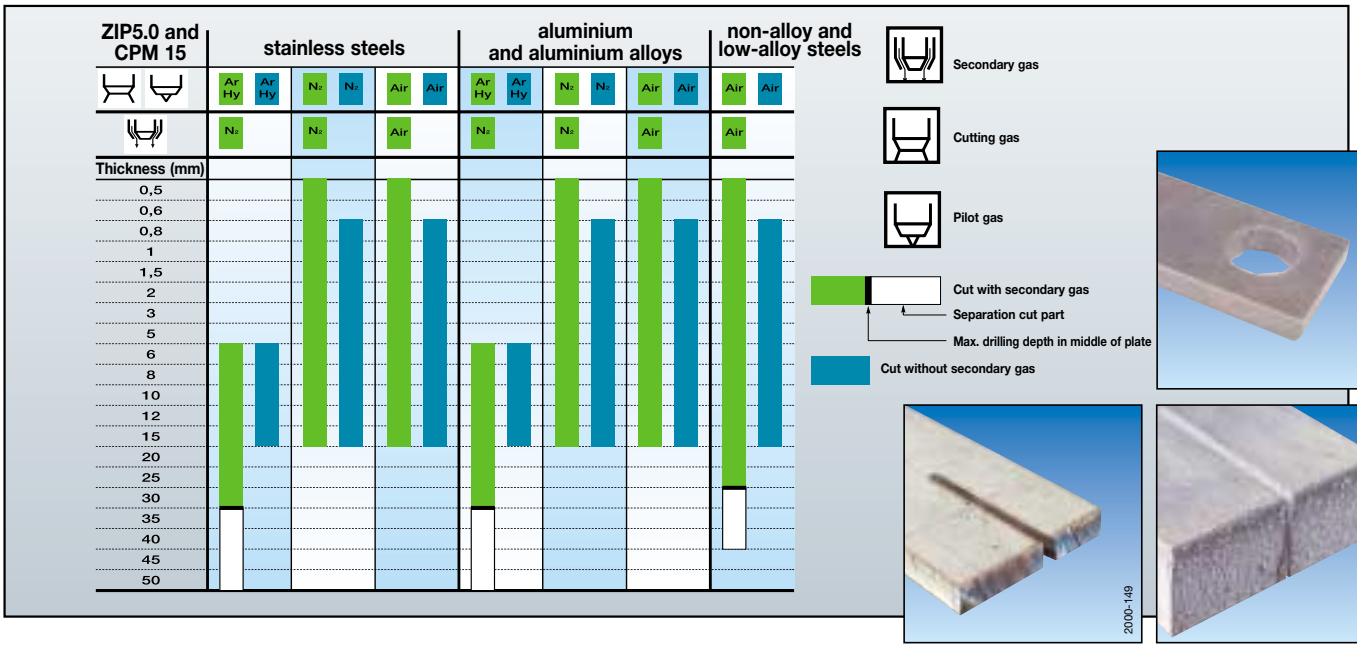
OXYSAF MACH 3S is an internal-mix blowtorch. Used with MACH 3S tips, it combines operating versatility with high-quality cutting. With their reduced gas consumption and high cutting speeds, MACH 3S tips are extremely economical and can be fitted on all types of blowtorch, requiring only 1 adapter for each application.





ZIP 5.0

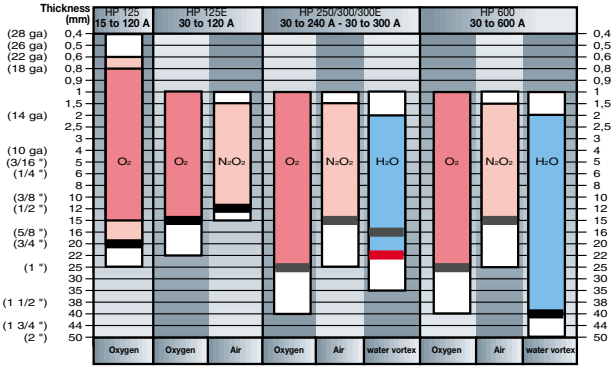
Operating ranges of ZIP 5.0 and CPM15 systems



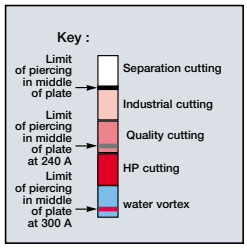
NERTAJET HP

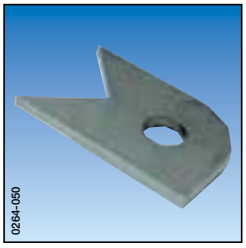
Multiprocess plasma arc cutting intallations. Range of NERTAJET HP plasma cutting.

Non-alloyed and low-alloy steels

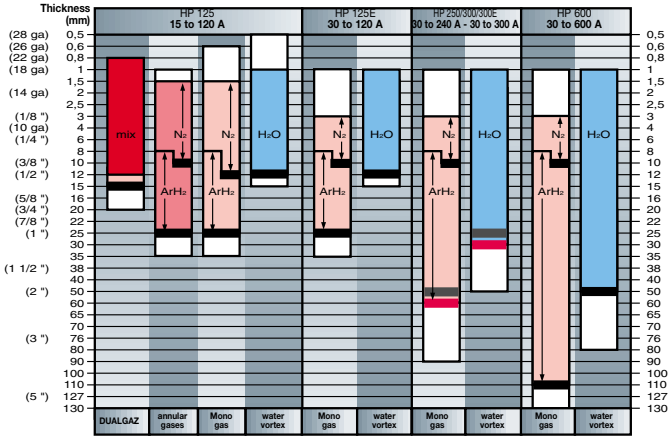


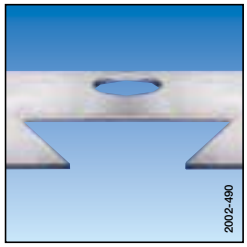
O_2 = oxygen
N_2 = nitrogen
$N_2 O_2$ = air
$A_r H_2$ = argon - hydrogen

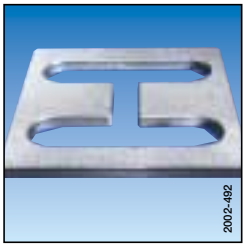




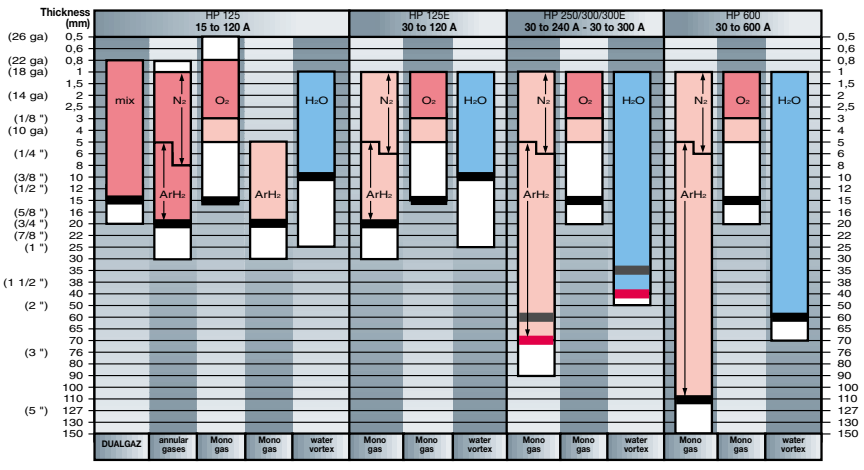
Stainless steels







Aluminium and aluminium alloys



For more information, please see the sales leaflet n° 1515-4111.

Large-dimension cutting

Opens the way to all oxycutting and plasma arc cutting works that call for the use of machines capable of cutting very wide plates and implementing more complex options.

■ The SAF range is completed by a range of machines capable of cutting large dimensions.

These machines are designed according to a machine-tool concept in terms of precision and repetitivity and meet current standards.

Designed to adapt to the client's applications and needs, they can cut widths of more than 10 m and implement different options such as variable oxycutting or plasma arc bevelling, mechanical drilling, plus a whole range of options suited to widely varying applications.

This range is built around 2 main machines: X-TOME and CYBERTOME.

The X-TOME machine is the wide-dimension member of the OXYTOME/PLASMATOME family.

The CYBERTOME machine differs from X-TOME by the dimensions of its beam and the position of its rails and is particularly intended for very wide applications.

These machines implement the entire spectrum of OXYTOME/PLASMATOME technologies such as single and multi-blowtorch oxycutting options, NERTAJET HP 125, 300 and 600 plasma arc cutting systems, as well as various numerical controllers and marking options. To complete the performance of these large machines, we can also propose options adapted to the work required, such as:

- a complete range of plasma and oxycutting bevelling units
- mechanical drilling heads,
- flame control devices for oxycutting,
- ink jet marking systems, etc.

X-TOME

A dual-motorization machine that complements the OXYTOME range. Its structure is adapted to allow cutting widths of up to 7 m (depending on equipment version).

■ The X-TOME (E) range of machines

These machines are designed according to a machine-tool concept. Two motorized travel frames supporting a high-inertia beam, equipped (like the OXYTOME E range) with a brushless motor driven by numerical VSDs, guarantee dynamic operation and quality movements that allow oxycutting of thick plates at low speeds and plasma arc cutting at high speeds.

The equipment of these machines, based mainly on standard OXTOME/OXYTOME E range components, can be adapted to suit the client's need.

The basic X-TOME range can take up to 8 blowtorch-holders (up to 10 possible on option).

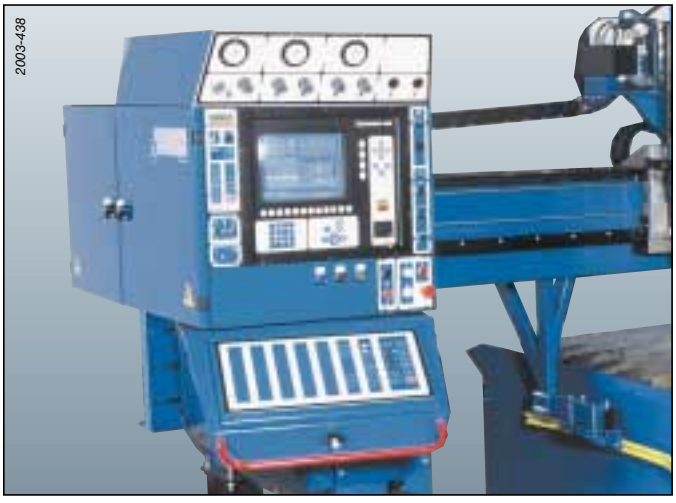
X-TOME machines include fittings allowing any of the following optional bevelling units to be added (maximum 1 per machine):

- 1.8-turn oxycutting bevelling unit
- Unidirectional plasma bevelling unit
- Variable plasma bevelling unit.

■ Flame control

Machines in the X-TOME and CYBERTOME ranges are specifically designed to accommodate an optional automatic flame control system.

This system ensures that all blowtorches start simultaneously and prevents flameless gas discharges from the blowtorches, thus guaranteeing completely safe machine operation with no need for an operator at the control panel.



■ Numerical controllers

Depending on the application, X-TOME and CYBERTOME machines will be equipped with DIGISAF 2.5+, 100, 510 or 610 numerical controllers or HPC DIGITAL PROCESS NERTAJET HP 125 for the plasma version.

CYBERTOME E: the high-capacity ma

A very high-capacity machine designed particularly for cutting applications in the most severe conditions.

■ The CYBERTOME range of machines, designed according to the machine-tool concept, can withstand the most severe operating conditions.

The available effective cutting width varies from 4 m to 12 m.
All versions are available in 3 m to 12 m widths in increments of 500 mm (other dimensions available on request).
The main feature of these machines is the wide variety of useful widths made possible by a system that can store any unused tool-holders on a parking track running on either side of the cutting surface and installed either behind the control panel, or above the slave travel frame.

Particularly suited to large-scale cutting projects, the CYBERTOME range can be equipped as an option with a motor drive unit capable of high speeds of up to 30 m/min. The standard equipment offers high speeds of up to 15 m/min.
Thanks to the quality of its very high-inertia welded beam, this machine can be equipped with a large number of options for widely varying applications:

- multi-blowtorch,
- multi-torch,
- plasma arc cutting with or without bevelling,
- mechanical drilling and marking.

The CYBERTOME range is equipped with a brushless motor driven by numerical VSDs to guarantee dynamic operation and quality movements that allow oxycutting of thick plates at low speeds and plasma arc cutting at high speeds.
The machines can be equipped with any of the following on request:

- up to 13 blowtorch holders for oxycutting
- single or multi-torches for all process types in the NERTAJET HP range (others available on request)
- mechanical drilling with a diameter from 12 mm to 35 mm on request
- different marking processes: pneumatic, plasma arc, ink jet
- automatic indexing
- angle or position-servocontrolled plasma or oxycutting bevelling according to specifications
- flame control
- all other specific options.

chine designed to cut wide dimensions

The bevelling solution: the standard CYBERTOME version can be fitted with 1 or 2 bevelling units. Thanks to its servocontrol capabilities, it can control up to 4 units on request. Depending on your application, we can propose 5 different plate bevelling solutions.

■ Bevelling

1.8-turn system with numerical-controlled rotation and manual positioning of blowtorches. Can work V, X and K type bevels adjustable from 0 to 45° for plates up to 60 mm thick. Can also be fitted on X-TOME type machines.

It is a numerical-controlled continuous rotation system.
The numerical controller programs the blowtorch positions.
It can work V, X and K type bevels ranging from 0 to 45° for plates up to 60 mm thick (other possibilities available on request).

■ Plasma arc bevelling

We can propose all types of solution depending on the required bevels.

• **Unidirectional bevelling unit:** this equipment can work bevels with a plasma torch parallel to the machine axes in the direction selected by the numerical controller. The angle is adjusted manually using mechanical stops.
As an option, this equipment can be installed on the X-TOME range.

Bidirectional bevelling unit: this system can work bevels with a plasma torch along both the X and Y machine axes.

Quarter-turn rotation is driven by the numerical controller.
The angle is adjusted manually using mechanical stops, thus ensuring angular repetitivity and programmable bevel type selection.

Variable plasma arc bevelling unit: with this unit, rotation and angle are entirely servocontrolled by the numerical control, which means that they can be programmed to modify the bevel angle to suit the trajectory.
This particularly lightweight but extremely rugged equipment guarantees excellent cutting results and can be adapted to all types of applications.

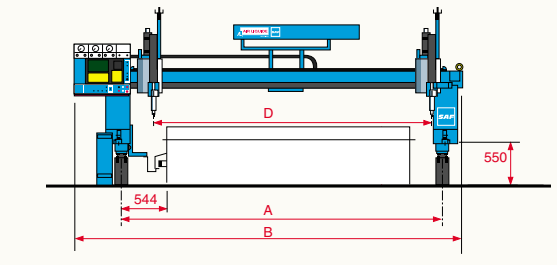
■ Mechanical drilling

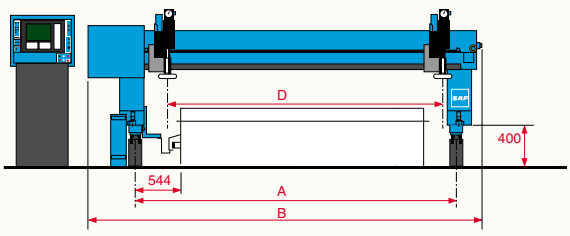
This option provides one drilling unit per machine. Depending on the applications, you can drill locating holes or through-holes. This electrical or pneumatic power drill is fitted on a pneumatic or hydraulic slide rail. The standard version allows for a diameter of 12 mm. As an option, we can fit the CYBERTOME range machines with a power drill capable of drilling depths of 35 mm, or with a multifunction unit equipped with drilling, tapping and countersinking heads.

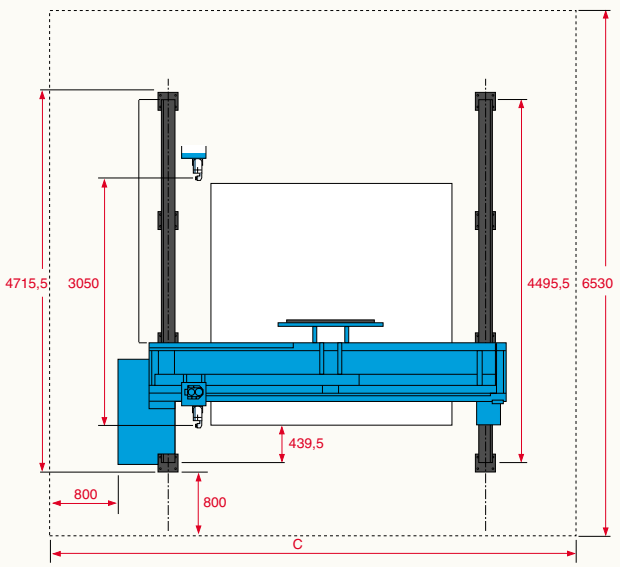
Main specifications

	A	B	C	D
OXYTOME 20 (E) / PLASMATOME	**2 950 mm**	**3 920 mm**	**5 520 mm**	**2 425 mm**
OXYTOME 25 (E) / PLASMATOME	**3 450 mm**	**4 420 mm**	**6 020 mm**	**2 925 mm**
OXYTOME 30 (E) / PLASMATOME	**3 950 mm**	**4 920 mm**	**6 520 mm**	**3 425 mm**
OXYTOME 40 (E) / PLASMATOME	**4 950 mm**	**5 420 mm**	**7 020 mm**	**3 925 mm**
X-TOME 50 (E) / PLASMATOME	**5 950 mm**	**6 420 mm**	**8 020 mm**	**4 925 mm**
X-TOME 60 (E) / PLASMATOME	**6 950 mm**	**7 420 mm**	**9 020 mm**	**5 925 mm**
X-TOME 70 (E) / PLASMATOME	**7 950 mm**	**8 420 mm**	**10 020 mm**	**6 925 mm**
PLASMATOME 20 HP DIGITAL PROCESS	**2 950 mm**	**3 750 mm**		**2 490 mm**
PLASMATOME 25 HP DIGITAL PROCESS	**3 450 mm**	**4 420 mm**		**2 990 mm**
PLASMATOME 30 HP DIGITAL PROCESS	**3 950 mm**	**4 250 mm**		**3 490 mm**

	OXYTOME/X-TOME	**OXYTOME E/X-TOME E**	**PLASMATOME**	**PLASMATOME HP**
Fast travel speed	15 m/min	15 m/min	15 m/min	15 m/min
2 operating speed ranges	0 to 4 m/min single motorization 0 to 10 m/min dual motorization		0 to 10 m/min	0 to 10 m/min
Maximum number of tool-holders	6 torches + 1 plasma arc torch 8 torches + 1 plasma torch (X-tome only) 4 torches + 2 plasma torches		1 or 2 plasma arc torches	1 plasma arc torch (2 as option)
Numerical controller	choice of 3 types DIGISAF 2.5+, 100, 510 or 610			HPC DIGITAL PROCESS
Dual motorization	option on all basic widths,	standard on 4 metre width	standard	standard
Effective length of basic cut	3 m	3 m	3 m	3 m
Additional length	in 3 m or/and 1.5 m items			
Marking (2, depending on option)	yes	yes	2 (with 2-torch option)	1 or 2 types (wen or felt-tip)
Positioning accuracy	-	-	-	± 0,1 mm
Electric ignition (option)	yes	yes	no	no
Capacitive probing (option)	no	yes	-	-
Detection (option)	no	yes	-	-
Gas control panel	optional	standard	-	-
Cutting thickness oxycutting	1 torch 5 x 230 mm 2 torches 5 x 200 mm	1 torch 5 x 230 mm 2 torches 5 x 200 mm	-	-
plasma	-	-	-	30 mm maximum
Plasma equipement	on request	on request	on request	NERTAJET HP 125 torch OCP 150 multiprocess







AZURMATIC: 3 differents solutions

■ Extraction table for dry cutting

The AZURMATIC table with air extraction offers unrivalled efficiency in terms of fume extraction thanks to its unique system of transverse extraction ducts.
Robustly designed in one-piece or modular form, the table is divided over its length into 1 metre sections, extraction taking place across the full width of the table on the module in operation only. Mechanical grills actuated by the displacement of the machine provide suction under the sheet at the place of cutting only.
This principle of operation guarantees optimum extraction, irrespective of the size of the sheet being cut, while maintaining a modest extraction air-flow rate.

Technical characteristics:

- transverse duct extraction system,
- division into 1 metre sections over the length of the table (500 mm sections on demand for intensive use),
- removable slag boxes,
- removable workpiece supporting frame with flat irons (section 100 x 6 mm) and wire mesh grid (50 x 50 x 5 mm),
- maximum capacity: sheet up to 300 mm thick.

■ Constant water level extraction table

Various processes, especially plasma cutting with non-immersed water vortex, require a cutting table with water recovery and fume extraction.
This table provides both possibilities. This process (which is patented) avoids the need for filtering equipment upstream of fume extraction.

Technical characteristics:

- one-piece design divided into 630 mm sections,
- standard lengths of 3 to 12 m,
- standard widths: 1.5 - 2 - 2.5 and 3 m,
- height: 700 or 800 mm
- maximum capacity: sheet thickness 50 mm.

■ Variable water level tables

Variable water level tables are specifically intended for immersed plasma cutting.
This procedure limits pollution by solid or gaseous matter and gives protection against audible and visual stress.
It improves accuracy of cutting while limiting distortions caused by heating of the workpiece.
Technical characteristics:

- modular construction in lengths of 1.5, 1.75 and 2 m,
- widths to demand,
- pivoting workpiece support frame for easier, faster cleaning.

Contacts

SAF
WELDING PRODUCTS LTD
Low March - London Road
Daventry - Northants NN 11 4 SD - England
Tél.: +44 1 327 705511
Fax: +44 1 327 701310
www.saf-wp.co.uk

SAF
13 rue d'Epluches
Saint Ouen l'Aumône
95315 Cergy Pontoise Cédex - France
Tel.: + 33 1 34 21 33 33
Fax: + 33 1 34 21 31 30
www.saf-airliquide.com

AIR LIQUIDE™
www.airliquide.com

Founded in 1902 and now present in 65 countries with 30,800 employees, Air Liquide is the world leader in industrial and medical gases and related services. The Group offers innovative solutions based on constantly enhanced technologies to help manufacture many indispensable everyday products and preserve life.

© SAF 1515-4119 - 04 01 S 01 Ed. 6
QB : 2015 - Photos : François