OPTITOME, OXYTOME, PLASMATOME, ALPHATOME AND CYBERTOME

Automatic machines using the plasma and oxycutting processes for high-quality cutting.

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For cutting non-alloy or low-alloy steels, stainless steels and/or light alloys, Air Liquide Welding can provide solutions for a wide range of applications. The possibility of combining the numerous processes and their possibilities gives you a wide choice of solutions and diversifications so that you can target your investment to suit your needs.
Quality and precision

ALPHATOME HPC

Performance and versatility

OXYTOME

PLASMATOME

CYBERTOME

Competitiveness and cost-effectiveness

OPTITOME 15

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A one-piece plasma cutting machine piloted by digital controls, particularly suited to professions that use steel, stainless steel and aluminium plates measuring 1 500 x 3 000 mm. The main applications concerned are small-scale production, metalwork and locksmithing.

OPTITOME 15
Has all the qualities required for plasma arc cutting, thanks to its design and the choice of techniques used in its manufacturing.

- Extremely sturdy yet light transverse beam requiring only one high-performance drive system to give optimum cutting,
- Rigid, sturdy frame.

Exhaust fume extraction table
This sturdy structure has optimized exhaust fume suction that acts over the entire length of the cutting table.
It is independent of the machine frame, thus removing the risk of guides and rails being put out of adjustment.
The dross boxes are mounted on a frame and are removable for easy cleaning.
A second frame can be provided to make for easier loading and unloading of workpieces.
The oxycutting option comes complete with a specially adapted steel metal backing strip.

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Designed for the ventilation, air conditioning, sheet metal industries, for small and medium-scale production units, or as an auxiliary unit to boost production when needed. OPTITOME 15 is a one-piece machine designed for easy handling without the need for dismantling, and for easy, quick installation.

Options

- **Optical reader**
  The OPTIMOME 15 is fitted with a DIGISAF 2.5 type digital controller. On request, it can be fitted with an optical read head to digitalize already existing drawings.

- **Marking**
  On option, the OPTIMOMO 15 can be fitted with 2 different types of marker.
  - **Wen marker**
    This pneumatic vibrator engravens sheet metal by slightly scoring the surface finish.
  - **Felt marking**
    This marker uses a felt tip which has been especially selected for its strength. It operates by gravity and does not alter the surface finish of the material. It is intended for use on galvanized steels, aluminium, stainless and black prepainted steels, depending on the quality of their surface finish.

- **Torch shock protection protection**
  This feature ensures torch safety and protects the environment from arc emissions. It is fastened independently of the torch to guarantee its vertical alignment after startup.

- **Oxycutting**
  Designed to cut carbon steels up to 50 mm thick.
  To increase the versatility of the OPTIMOME 15, this machine can be fitted with an oxycutting option.
  This option mainly includes:
  - 1 blowtorch
  - 1 gas pressure adjustment table
  - 1 blowtorch holder
  - 1 additional exhaust fume extraction table
  - 1 soft start arcing system with heating and overheating controls.
  - 1 additional special tool holder for oxycutting operations
  - A special OXY/POC adaptor for oxycutting with a NERTAJET HP 125.

Two possible plasma equipment configurations:
1. NERTAJET HP 125 plus OCP 150,
2. NERTAJET 50 plus CPM 15

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The OXYTOME / PLASMATOME range integrates all the features required to implement the plasma and/or oxycutting process.

Fitted with a tool holder with 250 mm travel, these machines can adapt to suit the needs of all trades, and have a cutting potential ranging from the thinnest (0.65 mm) to the thickest possible thicknesses for plasma and/or oxycutting. Their concept: versatility and a wide choice of:

- **Systems:**
  From the single-torch NERTAJET 50 to the two-torch NERTAJET HP 720,

- **Applications:**
  0.5 mm thick non-alloy steels
  To 350 mm thick low-alloy steels
  To 150 mm thick light alloys
  To 150 mm thick stainless steels.

- **Uses:**
  Dry plasma cutting
to immersed plasma cutting.
  (according to plasma installations).

**Main features:**
- Dual-motor drive system on the longitudinal axis ensures constant performance quality at any speed
- A range of suitable cutting speeds from 0 to 10 m/min.
- A 15 m/min range of travel speeds
- A single supplier for all equipment:
  - Machine, generator, torch, tool holder, height servo-control,
  - High-performance options for steel plate marking and environmental protection,
  - Torch shock protection on all versions of the NERTAJET HP
- Single or multi-torch available for enhanced productivity.

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The rugged design tool holder is capable of traveling 250 mm, thus allowing plasma arc cutting of materials in all conditions (immersed or dry). Immersed cutting is only possible using CPM 250, 300 and 720 torches in perfect safety.

Oxycutting tool holder
Electric tool holder with 150 mm travel.

Control panel
This panel contains all the functions required to remote control the cutting process. The plasma unit manages the process controls, the interface with the digital controller and the height servo-control functions required to guarantee quality cutting and the service life of the wear parts.

Pilot gas control table
This ensures continuous adjustment of the gas as required without the need for operator monitoring or intervention by the operator.

Reinforced structure for Plasmatome (RS)
For plates wider than 4m or for certain equipment, a reinforced structure is used to ensure movement stability and precision.
The OXYTOME range of oxycutting or plasma cutting machines combines the features required to implement your desired application: oxycutting, plasma cutting or marking processes. The OXYTOME range fitted with the HPC DIGITAL PROCESS controller automatically manages the flame cutting and/or plasma cutting and/or plasma marking processes.

- The OXYTOME HPC 20, 25, 30, 40 range or the OXYTOME RS HPC 30, 40, 50 and 65 range with reinforced structure provides the degree of automation required for your applications.
- Rational use of the NERTAJET HP plasma cutting process can be achieved by fitting it with an optional dual drive system.
- With the HPC DIGITAL PROCESS gas control features, you are sure of continuous gas control without the need for operator monitoring.
- Each blowtorch is fitted with a set of warm-up solenoid pilot valves to speed up the process.
- Rationalized gas control: to prevent maladjustments in the blowtorches and reduced gas consumption.
- Electric tool holder with 150 mm travel. Reduces operator interventions, thus limiting the risk of perpendicularity errors.
- Capacitive sensor: ensures tool holder automation and continuous monitoring of the cutting height. The small-diameter tilted edge capacitive sensor and the igniter are retracted when starting a cut in the center of a plate and are thus protected. When the tool holder is in the raised position, the capacitive sensor provides torch shock protection during high-speed movements.
- Automatic gas control via a control panel for each blowtorch:
  - Controls cutting oxygen, heating oxygen and fuel gas pressures
  - Optimized heating and overheating makes for reduced cutting times
  - Reduced heating/overheating transition time regardless of the number of blowtorches used
  - Precise flame adjustment for each blowtorch
  - Identical adjustment and operation when operating with one or more blowtorches
  - Exhaust-free regulation valve for safety
  - Electrical ignition and detection

- HPC DIGITAL PROCESS oxycutting control
  - Sets parameters
  - Creates a customized database (for new material, optimized parameter settings, possibility of using two different cutting qualities on the same workpiece)
  - Creates JOBS to memorize the cutting parameters and the parameters of the workpiece

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<tr>
<th>Oxytome</th>
<th>15</th>
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<td>Standard structure</td>
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Specific options for OXYTOME and OXYTOME HPC ranges

The OXYTOME range has a wide choice of options, providing the cutting professions with a whole variety of possibilities to suit their applications.

- **Tapering system**

- **Narrow strip cutting system**

  Capable of cutting strips from 80 to 155 mm wide, using independent blowtorches to give a better quality cut.

- **V X K axis straight beveling system**

  For bevels parallel to the axes using mechanical proximity sensors.

- **Oxycutting equipment**

  The standard machines are designed to take 6 blowtorches (8 available on option).

- **Tool holder PO 150 HPC with capacitive proximity sensor**

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The OXYTOME and PLASMATOME ranges have a wide choice of options, providing the cutting professions with a whole variety of possibilities to suit their applications.

- **Automatic indexing**
  The arrival of automatic indexing has encouraged an upward trend in multi-torch applications. This option uses the digital process control to adjust the spacing between torches. This means that the machine can be programmed to cut identical parts or one-off parts without the need for operator intervention. This option also allows entirely automatic use of a machine equipped with 2 identical or 2 different accessories.

- **Mechanical torch shock protection**
  The use of high plasma arc devices calls for the use of suitable torch shock protection. ALW has developed a system capable of operating in all positions and in all situations (immersed cutting or dry cutting) and that guarantees that the torch returns to its perpendicular position after the safety system has been tripped.

- **Fume extraction**
  On option, the machine can be equipped with a fume extractor above the torch.
  This system is designed to extract fumes, in particular during immersed cutting. The extractor is fitted with torch shock protection. A fume collector with lip seal is fitted on the machine. A second collector can be fitted along the track to evacuate fumes to the outside.

- **Emergency stop cable**
  Can be used to trigger an emergency stop from any point within the operating area of the machine. There is a cable at the front and at the rear of the machine.

- **Home point**
  (not shown) Used as a reference point from which all programs are started.

- **Anti-collision system**
  Used if 2 or more machines are traveling on the same track.

- **Power harness installation**
  (not shown)
  On option, the power harnesses can be positioned either:
  - Overhead,
  - On the driven rail side.
  In both cases, the machine is equipped with a dual drive system.

- **Cantilever beam**
  Allows side cutting.

- **Other options**
  Available on request.

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Plasma arc equipment

Power Sources
DC power sources are used. All automatic plasma power sources are of electronic “transistorized chopper” technology and providing superior performance thanks to the ability to react simultaneously with the cutting arc to ensure total cutting stability.

<table>
<thead>
<tr>
<th>Generator</th>
<th>Current range</th>
<th>Torch</th>
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<tbody>
<tr>
<td>NERTAJET 50</td>
<td>20 to 150 A</td>
<td>CPM 15</td>
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<tr>
<td>HP 125</td>
<td>15 to 120 A</td>
<td>OCP 150</td>
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<tr>
<td>HP 300</td>
<td>30 to 300 A</td>
<td>CPM 300</td>
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<tr>
<td>HP 600*</td>
<td>30 to 600 A</td>
<td>CPM 720</td>
</tr>
</tbody>
</table>

* 720 A possible on request.

Torches:
- **CPM 15 torch**
  For use on the NERTAJET 50.

- **OCP 150 torch**
  For use on the NERTAJET HP 125. Single or two-torch assemblies available.

- **CPM 360 torch**
  For use on the NERTAJET HP 300. Single or two-torch assemblies available.

- **CPM 300/720 torch**
  For use on the NERTAJET HP 200/600. Single or two-torch assemblies available.

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Plasma beveling system

**Longitudinal**
This system allows the operator to manually tilt the torch in order to work plasma bevels along the longitudinal axis.

**Straight**
This system is used to work bevels along the axes using a plasma torch. For further details on this option, please contact us.

**Open-ended**
System rotation and tilting are entirely servo-controlled by the digital process controller which makes it possible to program a bevel angle change during a run. This light but rugged system guarantees excellent cutting results.

MARKING
Five markers are available to suit your application:

- **Powder marking**
  Deposits grey zinc powder using an oxy/gas flame (for use only with the gas control panel)

- **HF marker pen**
  This pneumatic vibrator engraves sheet metal by slightly scoring the surface finish. Recommended for use on thin plates.

- **Felt-tip marking**
  Gravity-operated felt tip for marking stainless steels and light alloys. It operates by gravity and does not alter the surface finish of the material.

- **Pneumatic marking**
  For punching or engraving plates. The depth of marking is controlled by varying the compressed air pressure and the speed. Recommended for use on plates thicker than 5 mm.

- **Plasma arc marking**
  Low-power plasma arc for engraving or tracing on all materials. The depth of marking is controlled by the plasma arc power. The height is servo-controlled by the arc voltage.
An alternative to laser cutting, high-performance plasma arc cutting using the ALPHATOME DIGITAL PROCESS is the cost-effective solution for plasma cutting of non-alloy steel, stainless steel or light alloy plates. Gives precise cuts, particularly recommended for thicknesses of 0.5 to 25 mm.

The ALPHATOME fully exploits all the capabilities of the NERTAJET HP:
- A brushless drive system,
- Transverse and longitudinal guide system by recirculating ball bearings and slides,
- Suitable working height (920),
- A high-inertia longitudinal track,
- High-performance path control by the HPC digital process.

The combination of these techniques endows the NERTAJET HP with:
- Perfect path control,
- Perfect match between machine movements and the plasma process,
- On-going effort to achieve the optimum conditions required to ensure very high cutting quality,
- Positioning accuracy of +/- 0.1 mm.

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

Economic rating
The NERTAJET HP plasma cutting process lies between the oxycutting and the laser cutting processes in terms of machine investment, range of thicknesses to be cut and cutting quality. However, its fast cutting speeds provide the lowest operating costs (cost per meter of cut material).

Comparative economic analysis between the plasma cutting process and the laser cutting process

<table>
<thead>
<tr>
<th>Cut thickness</th>
<th>Laser Thk. 1 mm</th>
<th>Laser Thk. 2 mm</th>
<th>Laser Thk. 5 mm</th>
<th>Laser Thk. 10 mm</th>
<th>Plasma Thk. 1 mm</th>
<th>Plasma Thk. 2 mm</th>
<th>Plasma Thk. 5 mm</th>
<th>Plasma Thk. 10 mm</th>
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<tbody>
<tr>
<td>0.5 Euros per cut meter *</td>
<td>1.25</td>
<td>1.35</td>
<td>1.50</td>
<td>1.60</td>
<td>1.05</td>
<td>1.15</td>
<td>1.25</td>
<td>1.35</td>
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<td>Potential savings</td>
<td>60%</td>
<td>52%</td>
<td>40%</td>
<td>30%</td>
<td>50%</td>
<td>42%</td>
<td>30%</td>
<td>20%</td>
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</table>

* depends on return on investment times, hourly rates, etc.

Legend:
- Consumables
- Programming + labor
- Equipment costs

Cost-effectiveness rating
- Good
- Average
- Low

Legend:
- Laser
- Plasma

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Installation

NERTAJET HP 125 with OCP 150 torch

Multi-process oxygen, argon/hydrogen, nitrogen water vortex DUALGAZ system features:

- Torch with removable and interchangeable tip that does not trigger HFs when striking arcs,
- Power range adjustable from 15 to 120 A,
- Moderate noise level.

PO 150 tool holder

With 150 motorized travel, a torch shock protection system also offering visual protection, its guidance concept and its reaction speeds adapted to NERTAJET HP plasma cutting, this tool holder is the ideal high-performance instrument for controlling the OCP 150 or CPM 360 torch height. Its electronic sensor system measures the arc voltage to ensure the best position for optimum cutting quality throughout the cycle.

HPC DIGITAL PROCESS control panel

This control panel supports all of the machine's functional controls. It can be positioned as required to suit the type of machine used. On the ALPHATOME range, it comes as a stand-alone unit independent of machine movements. On the PLASMATOME and OXYTOME ranges, it comes as a built-in, swiveling unit.

For further details, see our sales leaflet No. 1515-4240.

Installation

NERTAJET HP 300 with CPM 360 torch

This multi-process DUALGAZ system is capable of high-performance cutting of non-alloy steels, stainless steels and light alloys.
The development of microprocessors has made it possible to group together all the components of a digital controller in a small space. The D 2.5+, 510 or 610 controllers integrate perfectly into the Air Liquide Welding machines to provide even better accuracy, productivity and return on investment.

**D 2.5+**
Generates 50 selectable shapes and can be connected to a programming software through a serial link.

**D 510**
Digital controller built around an open-ended PC architecture with Windows NT-based movement control software for enhanced performance and extremely high-performance multitasking operation. A touch-sensitive flat LCD screen provides access to a user-friendly man-machine interface, all controlled by a Pentium processor. Using the 50 standard shapes and the latest communication modes, the D 510 is a digital controller perfectly suited to automated cutting applications.

**D 610**
This digital controller developed under Windows 2000 integrates a sophisticated path algorithm that ensures dynamic, real-time path and I/O control. The high-performance, user-friendly man-machine interface integrates a high-quality touch-sensitive screen that provides access to the main control functions of the digital-control cutting machines.

Management of the 50 standard shapes, in particular the innovatory and diversified I/O management, further enhances its performances. The D 610 is also one of the key functions in thermal cutting processes. It comes with a high-performance touch-sensitive screen.
This new plasma cutting machines control concept 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.

The HPC DIGITAL PROCESS operates under Windows 2000 installed on an industrial computer. The system features: the digital controller, the process control, the man-machine interface, a touch-sensitive screen and a control panel for all startup and emergency stop operations.

**Easier workshop integration means:**
- The benefits of a tool adapted to your various cutting work, specially designed as an operator support
- Simple implementation of the plasma cutting machine,
- The benefits of a modern, innovatory, user-friendly design.

The Air Liquide Welding HPC DIGITAL PROCESS concept provides you with an intuitive and interactive means of accessing all our plasma and/or flame process expertise, as well as integrating and backing up your own expertise for retrieval by the various users. This system is organized and structured so that it can be operated by different members of your staff, 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, plus a multitasking capability. This function is provided by the digital control part of the HPC DIGITAL PROCESS.

**Applications**
The HPC DIGITAL PROCESS system is used mainly with OXYTOME/PLASMATOME and ALPHATOME cutting machines to control NERTAJET HP 125/HP 300 plasma cutting units fitted with OCP 150/CPM 360 torches. HPC DIGITAL PROCESS process management can be programmed to automatically combine plasma and/or flame cutting operations with plasma marking on the same plate.

All cutting machine users will benefit from 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 further details, see our sales leaflet No. 1515-4240.
**OXYCUT, oxycutting equipment (blowtorches + tips)**

1 **Standard equipment**

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

2 **Thick plates**

OXYCUT 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.

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**NERTAJET 50**

Operating ranges with the CPM 15 torch

<table>
<thead>
<tr>
<th>CPM 15</th>
<th>Stainless steels</th>
<th>Aluminium and aluminium alloys</th>
<th>Non-alloy and low-alloy steels</th>
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<tr>
<td></td>
<td>Stainless steels</td>
<td>Aluminium and aluminium alloys</td>
<td>Non-alloy and low-alloy steels</td>
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<td>Thk (mm)</td>
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**NERTAJET 50 : a multi-gas plasma cutting system.**

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

**MACH equipment**

OXYCUT MACH is an internal-mix blowtorch. It operates with MACH-OXY tips to guarantee operating versatility and high-quality cutting. With reduced gas consumption and high cutting speeds, MACH-OXY equipment is very economical. The tips can be fitted on any type of blowtorch and require only 1 adaptor for each application.
Multi-process plasma cutting systems.

NERTAJET HP systems operating range

### Non-alloy and low-alloy steels

<table>
<thead>
<tr>
<th>Thickness in mm</th>
<th>CPM 150</th>
<th>CPM 300</th>
<th>CPM 500</th>
<th>CPM 720</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.4</td>
<td>0.5</td>
<td>0.6</td>
<td>0.8</td>
<td>1.0</td>
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<tr>
<td>0.6</td>
<td>0.7</td>
<td>0.8</td>
<td>1.0</td>
<td>1.5</td>
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<tr>
<td>0.8</td>
<td>1.0</td>
<td>1.5</td>
<td>2.0</td>
<td>3.0</td>
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<tr>
<td>1.0</td>
<td>1.5</td>
<td>2.0</td>
<td>3.0</td>
<td>4.0</td>
</tr>
</tbody>
</table>

- **Oxygen**
- **Nitrogen**
- **Industrial air (N₂O₂)**
- **Argon - Hydrogen (ArH₂)**

### Stainless steels

<table>
<thead>
<tr>
<th>Thickness in mm</th>
<th>CPM 150</th>
<th>CPM 300</th>
<th>CPM 500</th>
<th>CPM 720</th>
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</tbody>
</table>

- **Oxygen**
- **Nitrogen**
- **Industrial air (N₂O₂)**
- **Argon - Hydrogen (ArH₂)**

### Aluminium and aluminium alloys

<table>
<thead>
<tr>
<th>Thickness in mm</th>
<th>CPM 150</th>
<th>CPM 300</th>
<th>CPM 500</th>
<th>CPM 720</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>0.8</td>
<td>1.0</td>
<td>1.5</td>
<td>2.0</td>
<td>3.0</td>
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<tr>
<td>1.0</td>
<td>1.5</td>
<td>2.0</td>
<td>3.0</td>
<td>4.0</td>
</tr>
</tbody>
</table>

- **Oxygen**
- **Nitrogen**
- **Industrial air (N₂O₂)**
- **Argon - Hydrogen (ArH₂)**

**Legends:**

- Separation cut
- Industrial cut
- Quality cut
- HP cut
- Water vortex

For further details, see our sales leaflet No. 1515-4110.
The CYBERTOME range, built around the machine tools concept to meet the most stringent operating criteria. The available useful cutting widths range from 4 meters to 12 meters. All versions are possible, from 3 meters to 12 meters in increments of 500 mm (other dimensions available on request).

The main feature of these machines is their wide variety of useful widths; since any tool holders not being used can be parked on the parking track running along either side of the cutting surface and installed either behind the control panel, or above the slave travel frame.

Particularly intended for large-scale cutting projects, the CYBERTOME range can be equipped on option with:

- A drive system capable of reaching 30 m/min, whereas standard equipment normally provides a speed of 15 m/min.
- The quality of its high-inertia welded beam means that this machine can be fitted with a very wide range of options to suit a large variety of applications: multi-blowtorch, multi-torch, plasma arc cutting with or without beveling, mechanical drilling and marking.

The CYBERTOME range is equipped with a brushless drive system controlled by digital VSDs to ensure dynamic operation and quality movements that allow oxycutting of thick plates at low speeds and plasma arc cutting at high speeds.

The equipment can be equipped with the following, depend on your needs:
- Up to 13 blowtorches for oxycutting
- Single or multi-torches for all NERTAJET HP 125, 300 and 360 range processes (others available on request)
- Mechanical drilling with a PCD ranging from 12 mm to 35 mm on request
- Different marking processes: pneumatic, plasma arc, ink jet
- Automatic indexing
- Angle or position-servo-controlled plasma or oxycut beveling according to specifications
- Flame control
- All other specific options.

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

**Beveling**

*1.8 turn system* with digital-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 digital-control continuous rotation system* in which the digital controller programs the blowtorch positions. It can work V, X, or K type bevels from 0 to 45° for plates up to 60 mm thick (other possibilities on request).

**Plasma arc beveling**

We can propose all types of solution depending on the bevels to be worked.

- **Unidirectional beveling unit:** This equipment can work bevels using a plasma torch parallel to the machine axes, in the direction programmed by the digital controller. The angle is adjusted manually using mechanical stops. Also available on option for the X-TOME range.

- **Bi-directional beveling unit:** This unit can work bevels using a plasma torch along the machine X or Y axes. The quarter-turn rotation is driven by the digital controller. The angle is adjusted manually by means of mechanical stops, thus ensuring angle reproducibility and programmable selection of the bevel type.

**Variable plasma beveling unit**

System rotation and tilting are entirely servo-controlled by the digital process controller, which makes it possible to program a bevel angle change during a run. This particularly light but sturdy unit guarantees excellent cutting and can be adapted to suit all types of application.

**Mechanical drill**

This option always provides one drilling unit per machine. Depending on the applications, you can drill locating holes or through-holes. The drill is either electric or pneumatic and is positioned by an electric or pneumatic slide rail. The standard PCD is 12 mm. On option, we can equip the CYBERTOME range with a drill capable of drilling up to 35 mm PCD, or with a multi-function unit equipped with drilling, tapping and countersinking heads.
AZURMATIC: 3 different solutions

■ Extraction table for dry cutting

The AZURMATIC table with air extraction offers unrivalled efficiency in terms of smoke removal thanks to its unique system of transverse extraction ducts. This sturdy one-piece or modular design table is divided lengthwise into 1-meter wide sections, so that extraction takes place over the entire width of the table but only on the module in operation. Mechanical grills actuated by the movement of the machine start up suction below the plate only at the point where cutting is taking place. This operating mode guarantees optimum extraction, regardless of the size of the plate to be cut, while still maintaining a moderate extraction air flowrate.

Technical characteristics:
- Transverse duct extraction system
- Table divided lengthwise into 1-meter long sections (500 mm sections possible on request for intensive use)
- Removable slag pots
- Removable workpiece support frame with 100 x 6 mm section flat irons and 50 x 50 x 5 mm mesh grid
- Maximum capacity: plates up to 300 mm thick

■ Constant water level extraction table

Various processes, in particular plasma arc cutting with non-immersed water vortex, require a cutting table with water recovery and fume extraction. This table offers both possibilities. This patented process avoids the need for filtering upstream of fume extraction.

Technical characteristics:
- One-piece design divided into 630 mm sections
- Standard lengths: from 3 to 12 m
- Standard widths: 1.5, -2, 2.5 and 3 m,
- Height: 700, 800 or 920 mm,
- Maximum capacity: plates up to 50 mm thick

■ Variable water level tables

Variable water level tables are specifically intended for immersed plasma arc cutting. This procedure limits solid or gaseous pollution and protects against audible and visual aggressions. It improves cutting accuracy while limiting distortion caused by heating of the workpiece.

Technical characteristics:
- Modular design in lengths of 1.5, 1.75 and 2m
- Widths to demand
- Workpiece support frame swivels for quick, easy cleaning.

www.westermans.com
### Main characteristics

<table>
<thead>
<tr>
<th></th>
<th>OXYTOME HPC</th>
<th>PLASMATOME</th>
<th>ALPHATOME</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High speed</strong></td>
<td>15 m/min</td>
<td>15 m/min</td>
<td>22 m/min</td>
</tr>
<tr>
<td><strong>Operating speed for both ranges</strong></td>
<td>0 to 4 m/min for single-drive systems 0 to 10 m/min for dual-drive systems</td>
<td>0 to 10 m/min</td>
<td>0 to 10 m/min</td>
</tr>
<tr>
<td><strong>Max. number of tool holders</strong></td>
<td>8 blowtorches 6 blowtorches + 2 plasma torches</td>
<td>1 or 2 plasma torches</td>
<td>1 plasma torch (on option)</td>
</tr>
<tr>
<td><strong>Digital controller:</strong></td>
<td>choice of 4 types DIGISAF 2.5+, 510, 610 or HPC DIGITAL PROCESS</td>
<td>HPC DIGITAL PROCESS</td>
<td></td>
</tr>
<tr>
<td><strong>Dual drive</strong></td>
<td>on option for other standard widths</td>
<td>de base</td>
<td></td>
</tr>
<tr>
<td><strong>Useful standard cutting length</strong></td>
<td>3 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Additional length</strong></td>
<td>per 3 m and/or 1.5 m element</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Marking (both depending on option)</strong></td>
<td>yes</td>
<td>2 (if two-torch option)</td>
<td>yes</td>
</tr>
<tr>
<td><strong>Positioning accuracy</strong></td>
<td>± 0,4 mm</td>
<td>± 0,4 mm</td>
<td>± 0,1 mm</td>
</tr>
<tr>
<td><strong>Electric ignition</strong></td>
<td>yes</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td><strong>Capacitive sensor</strong></td>
<td>yes</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Detection</strong></td>
<td>yes</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Standard control gas</strong></td>
<td>de base</td>
<td>-</td>
<td>de base</td>
</tr>
<tr>
<td><strong>Cutting thickness</strong></td>
<td>2 blowtorches for 5 to 300 mm range 8 blowtorches for 5 to 80 mm range</td>
<td>-</td>
<td>maximum 30 mm</td>
</tr>
<tr>
<td><strong>Plasma equipment</strong></td>
<td>to demand</td>
<td>to demand</td>
<td>NERTAJET HP 125 / OCP 150 or NERTAJET HP 300 CPM 360</td>
</tr>
</tbody>
</table>

* RS : Reinforced Structure
** 5 PO on parking track
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E mail: info.saf@airliquide.com

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