

waterjet
cutting
system

CMS[®] Tecnocut
waterjet technology



Waterspeedy

The complete solution in waterjet cutting technology

Tecnocut is the leader in the manufacture of **complete waterjet cutting systems**.

The only manufacturer in Italy, and among the few in the world, to design and develop everything internally.

3 basic components: very high pressure heat intensifiers, cutting robots and highly sophisticated management and control software.

3 elements to be number 1 able to supply its customers with all the required tools, in a single and complete major solution:

3for1st

Hardware

cutting robots specifically for fast, precise waterjet cutting

Software

extremely sophisticated, very simple and highly effective software

Power

pressure intensifiers, the spirit of waterjet cutting systems, with maximum reliability and minimum operating costs



3rd for 1st



JetpowerTM evo

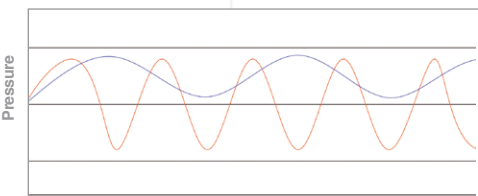
Pressure intensifier all made by Tecnocut

Tecnocut established a new concept of ultra high pressure intensifiers by giving its uniqueness and exclusivity, enhancing its technology making it the real answer to the prayers of the most demanding users. The original technical design was for the system to be fitted with several electronically synchronized, parallel, independent pressure multipliers. This allows increasingly constant pressure, avoiding typical drops of the traditional intensifier with single opposite cylinder.



Pressure multipliers
Electrically synchronized, parallel, independent cylinders granting:
1. Continuous pressure signal
2. Low maintenance costs

2



Traditional intensifier with single opposite cylinder

Tecnocut intensifier with parallel cylinders

1

Electronic pressure control by software



30 Hp



120 Hp



3

Hydraulic panel
Latest generation system with variable flow rate hydraulic pumps



4

Air-oil cooling system
It allows the reduction of processing costs by eliminating the need for water required by traditional pressure intensifiers

Specifications

Models		Jetpower evo		Jetpower
		30Hp	60Hp	120Hp
Power	kW/Hp	22,5/30	45/60	90/120
	Multipliers	n°	2	3
Max water pressure		bar/psi		4150/60.000
Max flow rate		lpm/gpm		2,5/0,66 5/1,32 9/2,38
Max diam. Orifices		mm/in		0,28/0,011 0,40/0,016 0,50/0,019
Voltage		400V +/- 5% 50-60 Hz (different voltages and frequencies required)		



Waterspeedy™

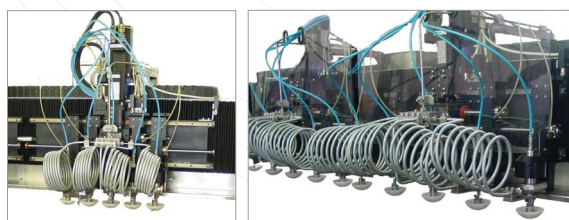
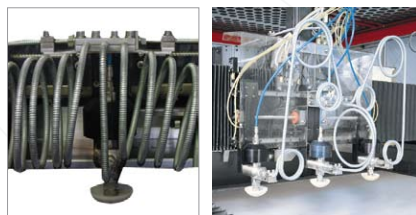
Rapid and flexible cutting robot

Waterspeedy is a system suitable for flexible materials cutting, as plastic, foams, rubbers, composites, multilayer materials, gaskets and technical materials. Its extremely high dynamic, together with the possibility to work with several cutting, and its automatic pallet change system, assures exceedingly high productivity and competitive costs when compared to conventional systems.

Waterspeedy is the result of a careful planning to the satisfaction of customer's requirements and it tends to reach the highest safety standards.

Safety booth 3
Sound-proof booth for the cutting area protection with suction system

Multiheads 2
Additional cutting heads composed of trolleys with 1, 3, 5, 10 cutting heads, all with automatic adjustment of the centre distance

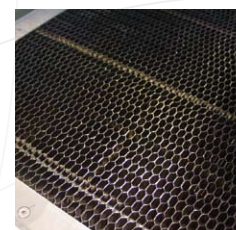


Cutting robot management hardware and software 1
The software, completely developed in a Windows® environment, provides easy dialogue with the operator and is personalized for easy management of all the functions of a waterjet cutting system, including the kerf control function (IKC) for 5-axis systems. The robot's hardware, based on a robust industrial PC, is fitted with a network board

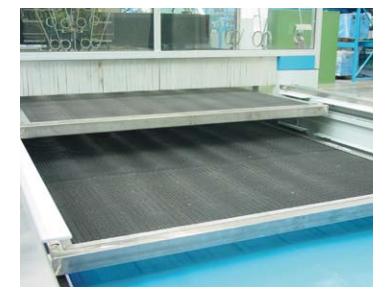
4 Handling
Rack and pinion transmission with high precision and dynamism



6 Support plane
Honeycomb grid for plastic materials cutting



5 Automatic pallet change system
Separate loading and unloading areas with automatic pallet handling



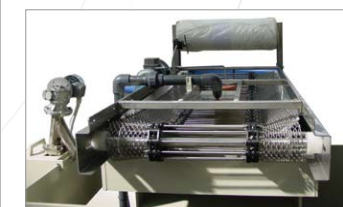
7 Loading and unloading system with carpet
Loading and unloading area and working area composed of dedicated conveyers belts (only for model 1630 Sliding carpet)



8 Screw
Integrated automatic system for removing cutting scraps



9 Paper filter
Waste water filtering system



3rd for 1st



Tecnocam

TM

The Software,
simple to use and
effective in its performance

Tecnocam is a CAM software package used for the complete management of the technology of waterjet cutting systems.

Developed in a Windows® environment, it was created and developed in result of the vast experience gained by Tecnocut in the sector.

Tecnocam allows interfacing with the most varied drawing software packages available in the market.

Materials database

The software is completed by a database containing the technological parameters of the materials most commonly used for waterjet cutting.

It can also be implemented for meeting precise technological needs. The technology of the individual sections that comprise the imported shapes can be modified to optimize the cutting sequence and their processing



Rubber



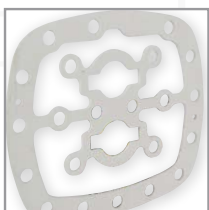
Foam



Vulcan



Gasket without asbestos



Teflon



Foam

1

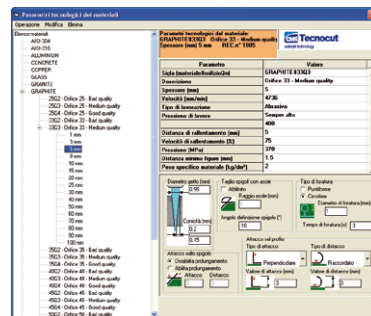
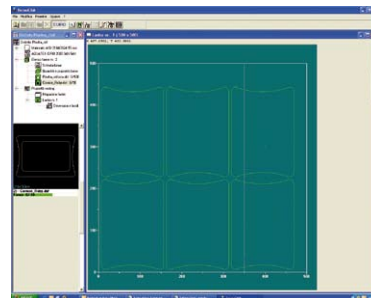


Plate optimization (nesting function)

The high level of development of the nesting algorithms allows perfect optimization of the space on the plate, managing both plates of different dimensions and possible processing offsets

2

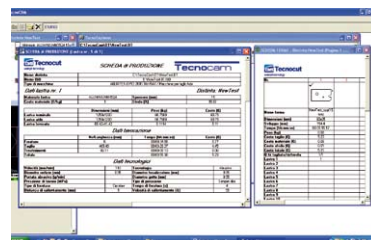


Management of the cutting orders and estimates

The management of cutting orders is handled by a simple interface and it is possible to obtain information relative to the placing data with graphic display of the plate, the relative technological cutting data and the production estimate, divided into cutting costs and material costs.

Following ISO generation the exactness of the cutting route can be checked with an instrument that reproduces the cutting machine's CNC

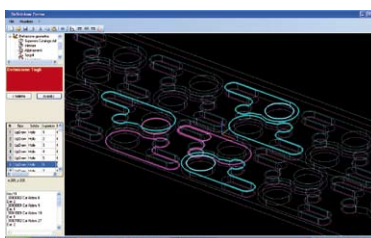
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TECNOCAM 3D three dimensional cutting management and special machines

The optional Tecnocam 3D module is a software that manages multi-head cutting by selecting which the greatest number of heads and their centre distance are that minimizes the cutting time and maximizes the exploitation of the plate. It can also manage the common cutting procedure

4



Technical data

Model

1625

1630

1630 Sliding Carpet

X Axis	1600 mm / 63 in	1600 mm / 63 in	1600 mm / 63 in
Y Axis	2500 mm / 98.43 in	3000 mm / 118 in	3000 mm / 118 in
Z Axis	150 mm / 5.91 in	150 mm / 5.91 in	200 mm / 7.87 in
Support plane	1630x2520 mm / 64.17x99.21 in	1630x3080 mm / 64.17x121.26 in	1630x3080 mm / 64.17x121.26 in
Overall dimensions	6240x2900xh 2500 mm 245.67x114.17xh 98.43 in	7240x2900xh 2500 mm 285x114.17xh 98.43 in	7240x2900xh 2500 mm 285x114.17xh 98.43 in

Support plane max capacity: 150 kg/mq

Velocity: 0 → 70000 mm/min / 0 → 2755.9 in/min

15" TFT colour monitor, keyboard with integrated mouse and manual control device

External port for USB key interface (USB 256 Mb key supplied)

Connection to the computer network: RJ45 10/100 Mb connector

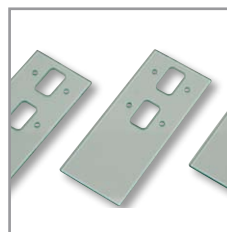
Tecnocut is leader in the manufacture of different models of waterjet cutting systems dedicated to several application fields



Aluminium



Granite



Monolithic glass



Plastic

Tecnocut, founded in 1992, very quickly became one of the most authoritative references in the waterjet cutting technology field. In 2005 it became part of CMS Industries, a SCM Group company, worldwide leader in the manufacture of numerical control machines for processing wood, advanced materials, marble and glass. Thus Tecnocut guarantees its presence in 120 countries and an increasingly articulated solution to different production requirements.

Moreover its presence in AIW (Associazione Italiana Waterjet), of which it is a founder member, and WJTA (American Waterjet Association), of which it is a member, represents a guarantee of constant updating for Tecnocut.

A solid and very flexible company structure, a group of people able to produce excellent solutions and offer exclusive and innovative solutions to the market at an interesting price. This is the added value that Tecnocut offers its customers every day.



CMS Tecnocut

waterjet technology company of CMS Industries

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