your glass vision

CMS Brembana

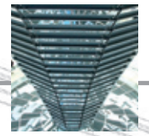
glass technology

Trapani e trapani-fresa verticali a CNC
CNC drilling and drilling-milling vertical machines

Vertec


Furnishing


Buildings


Artistic glass

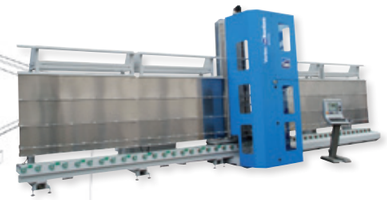

Automotive


Appliances


Photovoltaic

Vertec

glass technology
applications and processings



Complete range of drilling and drilling-milling vertical machines

Advantages of vertical machines

The most innovative and flexibile solution for the vertical drilling and milling operation

Vertical machine needs less floor space and has better water containment

Modular design used stand alone or integrated into production lines with many automatic options

Handling parts vertically eliminates breakage when moving glass between vertical and horizontal

Zero set up time, while other parts are machined, single operator loads and unloads.

Machine any shape that has at least one straight edge
Drill anywhere from both sides for perfect holes with arris or bevel

Reduced cycle time, continuous automated production

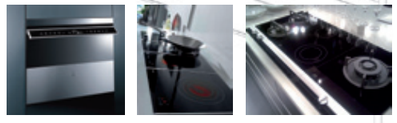
Full safety for operator protection covering all moving parts

Double glazing, windows and structural facades

Doors, stairs, tables and tops

Shower doors, enclosures

Ovens and stove tops



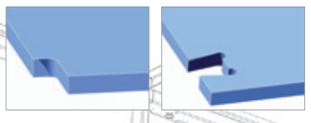
Monolithic glass

Laminated glass

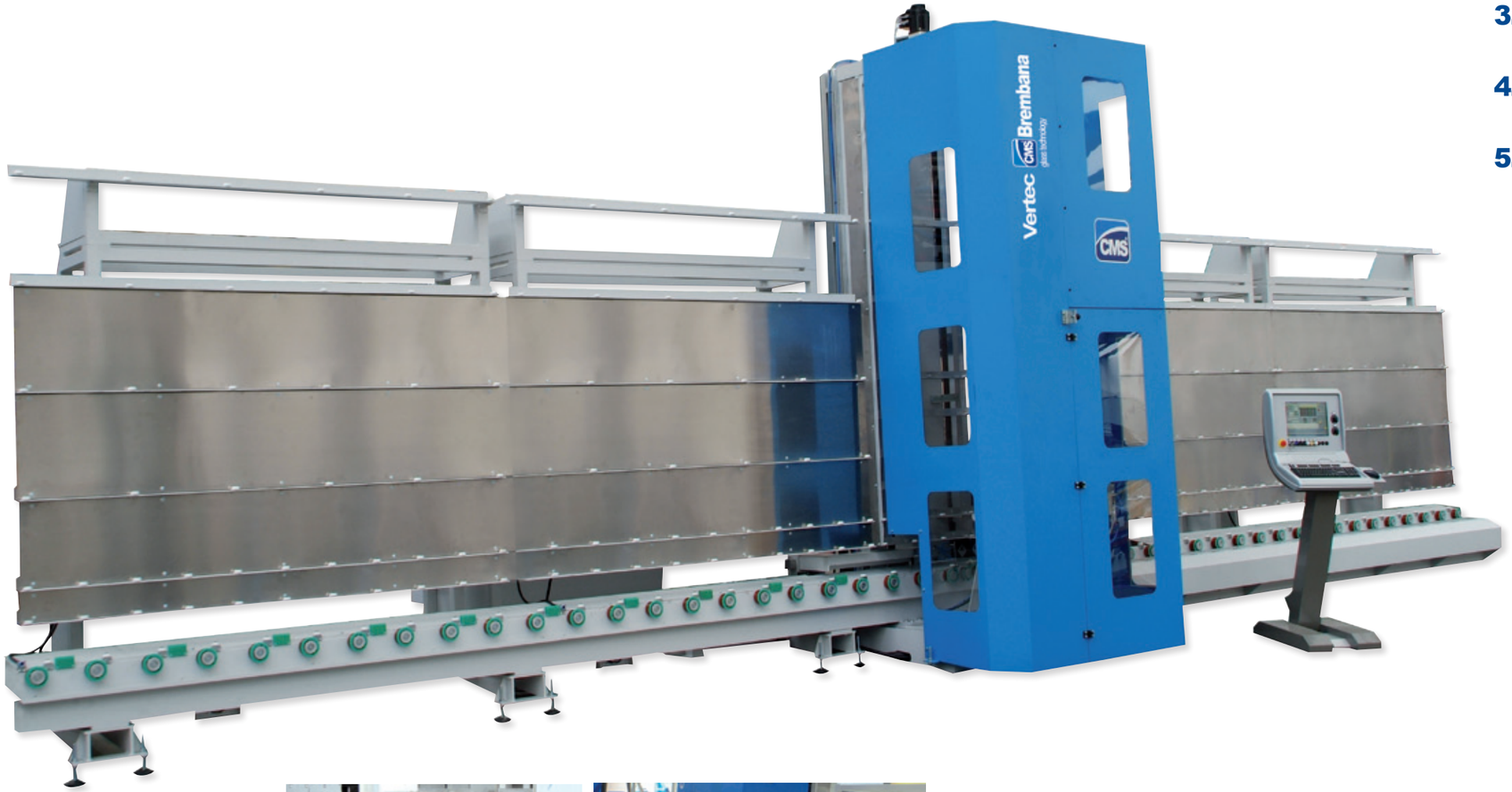
Low-e glass

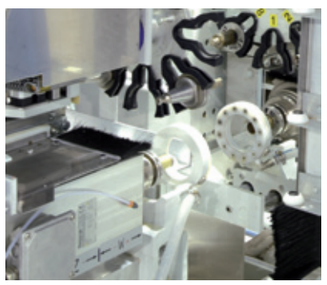
Drilling and countersinking

Milling and notches



1. Two opposed and coaxial electrospindles with power 3.7 kW (5 HP) at 6.000 rpm, programmable rotation 0 ÷ 15.000 rpm and ISO 30 cones connection.
Internal and external tools cooling water and fast release of the cones.




Electrospindles


Bearing frame


Frontal cover

2. Two rotating tool cribs, one for each electrospindle, with 8 positions, NC managed. They are installed on two carriages fixed to the electrospindles which assure a fast tool change.

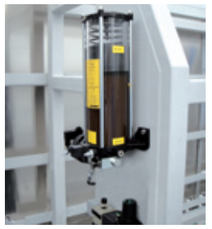
3. Long lasting and with low maintenance rolls. They are frictioned, with motorized chain and covered in Vulkolan, a material with very low wearing.

4. Automatic lubrication of the axes governed by NC, without any manual intervention and machine stop.

5. Bearing frame in electro-welded thick steel, ribbed and normalized. It acts as a solid base ensuring the operating units an equilibrated stable and resistant support, with superior quality, precision and performance.


Tool crib


Rollers

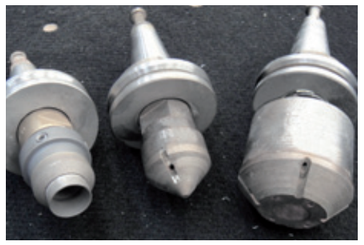
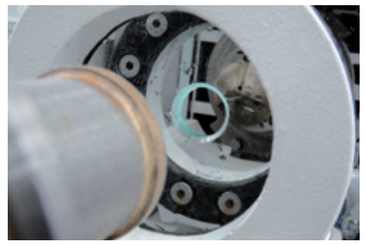

Automatic lubrication

VERTEC	TECHNICAL DATA
Maximum workable glass length	126 in – 295 in
Maximum workable glass height	63 in – 130 in
Minimum workable glass dimension	20 in x 8 in (15 mm x 8 mm optional)
Glass thickness	1/8 - 5/4 in
Tollerance on two consecutive drills	±0,3 mm
Electrospindles power and rpm	5 HP - 0÷15.000 rpm
Drilling bits diameter	3 ÷ 60 mm

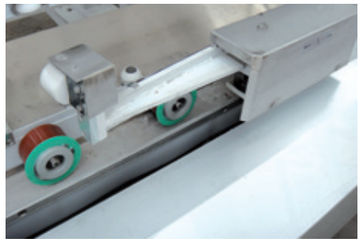
VERTEC

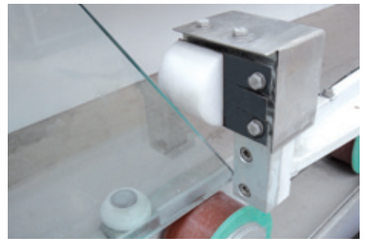
Drilling

Large choice of drilling bits, countersinks and drilling bits with integrated countersinks.

Glass reference with motorized stop. It allows the processing of rectangular and shaped glass (with at least one straight edge) with very high accuracy.





Pressing rings with internal water passage, **"patented"**. Their joined work create a water cushion wich reduces vibrations, cleans the glass and cools the tools. They automatically clamp the glass during drilling/countersinking processings and guarantee excellent finishings.



Machine managed with Osai series Sync-motion control. The working cycles are directly programmable on a touch screen control panel for an easy and very intuitive working.

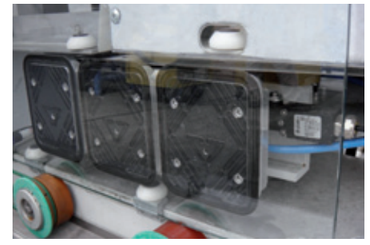
VERTEC+Mill

Drilling and milling

Large choice of mills, edging wheels for a better finishing as well as polishing wheels for edge polishing.



Two groups of suction cups for the holding and longitudinal moving of the glass. The suction cups are engineered by CMS to maximize vacuum capacity. Each suction cup is installed on rectified aluminium plate and guarantees perfect planarity with the glass.

During the milling and edging operations, the pressing rings will achieve a distance of 0,2 mm from the glass. The water cushion along with the distance from the glass will avoid any possible scratching on the surface.



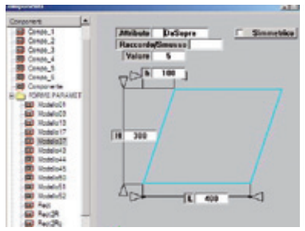
Machine managed with numerical control OSAI series 510 S. The working cycles are directly programmable on a control panel with the CAD-CAM software DDX EasyGlass studied and developed with CMS engineers.

Software and assistance

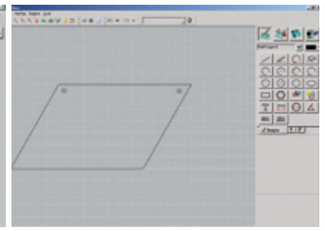
Programming software

DDX Easyglass is the most user friendly CAD/CAM software solution for glass production

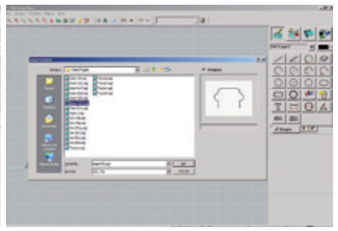
DDX software



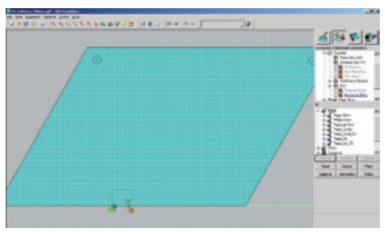
Parametric shapes library or .dxf files import



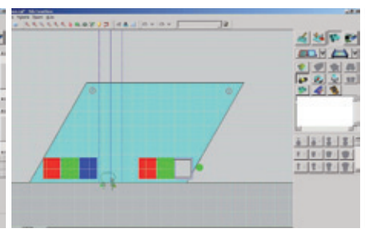
Free drawing with the integrated CAD



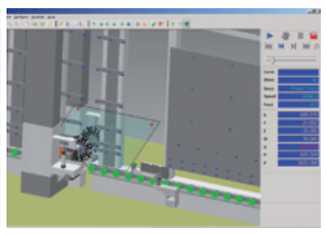
Possibility to save and recall frequent processings, creating a library (example: notches, millings, etc.)



Possibility to modify, manually, the working parameters (example: lead in & lead out of the tool, etc.)



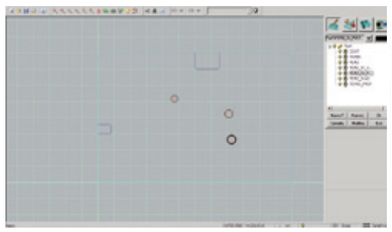
Automatic positioning of suction cups and possible manual adjustment



Three-dimensional simulation of the processing

Processing barcode management

Managerial software KWP that, scanning a barcode, automatically creates a working programme and provides to the machine all the commands for the correct execution. The programming, prepared in the office, simply needs the creation of a .dxf file with one layer for every processing.
KWP allows a continuous production flow, resetting idle times for on board programming to zero.



Example of .dxf file created on multiple-layers

Barcode scanning

KWP software in execution and next glass ready for processing

First level assistance service

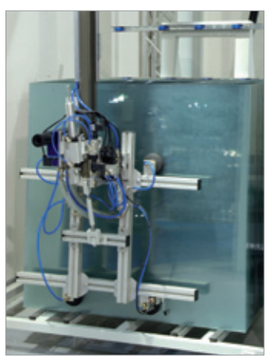
High qualified personnel is at Customer's disposal, since the moment of installation. A call center, teleservice and on site service are the advantages for the purchasing of one CMS Brembana.

Production lines

In addition to stand alone machines, CMS Brembana can supply also high productivity lines, complete with loading/unloading systems, paper spreading devices, and manipulators. The range of CMS Brembana vertical machines has been engineered to be integrated in-line with other machines supplied from CMS Brembana or from other suppliers.
An extremely qualified team of engineers, with many installation successfully working since several years experience, is on Customer's hand for any customisation.

Profile

Vertec

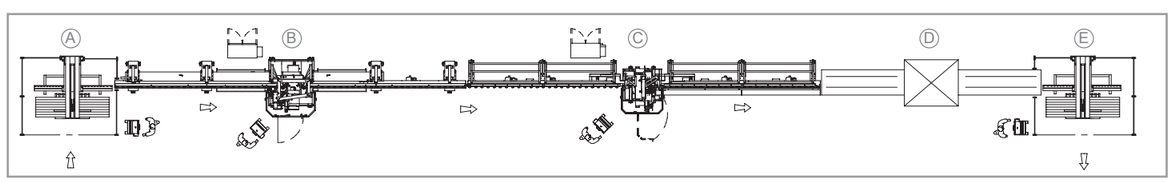


Automated loading and unloading

Automatic paper-spreading systems

Washers and full integration available

Example of automatic line



Automatic loading | Grinding | Drilling/milling | Washing machine | Automatic unloading

COMPANY

THE COMPANY

GCVERTE-0712E

CMS Industries

Founded in 1969, CMS SpA (Costruzione Macchine Speciali) consists of four industrial divisions under the brand CMS Industries, with a turnover of 100 Million Euros, 3 production plants, 4 branches and a worldwide sale & service network.
CMS Industries is specialized in the production of multi-axis CNC machining centres, thermoforming machines, CNC routers and waterjet cutting systems, providing machining solutions to the major industries and their subcontractors in several sectors: aerospace, automotive, marine industry, energy generation, building, mechanics, moulds, prototypes, eyeglasses, stone, glass and wood.
This wide, precise and high quality lines of products offer a comprehensive range of flexible, innovative and cost effective solutions, covering many production phases as well as customized solutions for specific processes.
From 2002, CMS SpA is part of SCM GROUP (www.scmgroup.com)

CMS Balestrini
wood technology

CMS Cms
advanced materials - plastic - wood technology

CMS Brembana
glass - stone technology

CMS Tecnocut
waterjet technology

www.cmsindustries.it

Technical data are not binding and may be changed by CMS without prior notice.

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