A recent visit to one of its clients – CMS Brembana – enables Glass Technology International to see exactly how the company works to satisfy each and every specific request from its clients. The machinery on show, for one of its most important customers, a manufacturer of shower doors, was up and running for both the press and invited guests.

Founded in 1969, CMS Industries is the head of CMS Brembana, a brand name that brings together three companies, and has reached a turnover of EUR 100 million, with four subsidiaries and a worldwide sales network. CMS Industries products: CNC work centres, thermoforming machines, CNC cutting robots, waterjet systems, compete to produce space shuttles, military and civil aircrafts, Formula 1 cars, competition and road vehicles, America’s Cup boats and yachts, wind power generators, combining processing quality and precision, studied technology based on the customer’s needs, able to cover several production phases, but also optimized for every single process.

In 2002, a strategic decision brought the group leader CMS Industries to join forces.
with SCM Group, world leader in the production of processing machines for wood, with more than 3,500 employees, a turnover of EUR 650 million and a presence in 120 countries throughout the world.

The strength and the characteristics of CMS Brembana is and has always been that of building special machines; not at all standard in any way, and which are solutions that develop from the needs of its clients and its planning department and engineers who know how to identify and use this information with excellent and often innovative results.

THE VISIT TO THE COMPANY

On 24 May 2010, Glass-Technology International was invited to see, before delivery to the client, two complete and fully-automated Shower doors specialists, Novellini, is one of Deltaprogetti’s (today part of Brembana Glass)— historical clients, and of which it has always appreciated both the high quality of the product and processes carried out, as well as the complete automation of its machines.

This new machine, designed especially for the most demanding production lines as far as quality is concerned, is just one more of the numerous Deltaprogetti machines bought by Novellini over the years: 15 complete lines and stand-alone machines, along with 32 robotic loading, unloading and palletizing systems.

lines for the production of glass for shower doors, and the innovative Deltaprofile, the first vertical work centre for glass.

In particular, at the premises of CMS Brembana at Levate, Bergamo, northern Italy, we were also able to take a look at two of the three lines ordered by Novellini, a European leader in the production and distribution of shower doors, with headquarters in Mantova,
and present in over 30 countries worldwide.

During our visit to CMS, Maurizio Bernini - Head of the Marketing Department - took us to see the machines on show. With regards to the robotic water jet cutting centre, the most important feature to be considered is that is the precision with which it works - able to carry out countersunk holes which, especially with regards to shower doors, are a fundamental aesthetic aspect of the glass.

The Idroline, which, as previously said, uses an anthropomorphic robot to load, unload and position the glass, is totally-automated and needs only one operator. The machine was up and running regularly, and was observed by invited guests and clients.

Another machine that Glass-Technology International has the opportunity of observing was the Deltaprofile vertical work centre. This machine, also completely automatic, is ideal for situations where space is an issue, but also where glassmakers want to facilitate the movements of the glass during the various processes it undergoes.

We also met Carlo Alberto Crescini – Area Manager – who spoke to us about the company’s interest in the photovoltaic sector, an important part of the glass market, and which is developing fast in Europe.

Carlo Propersi – Head of the Glass and Stone Division, spoke to us about the international markets and the company’s global activities.

Of course, the typical question is that of the crisis and how the company is reacting. Maurizio Bernini informed us
that 2009 was, of course a difficult year for them too, but not so much thanks to orders that the company had received in 2008.

2010 got off to a bad start, like for all other companies, but, since March, things have been picking up. This year has begun with more requests for specific machines, which are more complex and take longer to make. And this is where CMS Brembana can put its expertise on show. Being a company that works exclusively as per client order, it can dedicate all its attention and

The pieces of glass, arranged on vertical racks, are removed by a Kart-Pall robot and loaded onto the Futura FP horizontal bilateral machine, which carries out flat edge grinding. A second Kart-Pall robot removes the glass leaving the bilateral machine and loads it onto the vertical Compact Drill+Mill, which carries out both holes and notches. This is followed by washing of the glass in a washing machine and, last but not least, the unloading onto the racks along with laying of paper, carried out by a third Kart-Pall robot. The entire line can be managed by only one operator, who only needs to input the glass sizes in the computer and processes to be carried out and the rest is done by the machine. Speed can be up to 1,500 millimetres per minute, with glass sizes ranging from the smaller sizes of 300 x 300 millimetres, to 2,000 x 2,600 millimetres, right up to 4,500 x 2,600 millimetres, and thicknesses of from 3 to 30 millimetres. The machine on show at CMS’ premises was for glass sizes of 4,200 millimetres.
technical ability to each single and individual client request.

**MARKETS**
Markets that are more active for the company are Canada, the Middle East, Saudi Arabia and Turkey. The company is carrying out important investments in Brazil, also because of the important growth that this country is undergoing. In fact, CMS Brembana is supported by a local branch in Brazil (Tecmatic, São Bento do
The loading area is made up of two racks positioned on a rotating platform, designed to load the machine while production is running: this means that while the external rack is loaded, an anthropomorphous robot picks up the pieces of glass from the internal rack and loads them onto a Tecnocut Idroline 1740, which carries out drill holes, countersinking and notches. The processed pieces of glass are then picked up again by the anthropomorphous robot which loads them into the washing machine. At the exit of the washing machine, the glass is picked up by a Kart-Pall robot arranged in a similar system to that of the loading area (two racks on a rotating platform), which also enables the unloading while production is running.

The design of this line derives from an extremely rigid demand of precision on countersunk drill holes, which can only be obtained by systems with tools by drastically reducing productivity. This system, based on water jet cutting, combined with an anthropomorphous robot, fully satisfies this request, combining productivity with total automation. One particular feature of this robotic island is that, thanks to the robotic positioning of the glass, there is no need for suction cups or the positioning of the glass sheets.
CMS Brembana: customized products for specialized production

### IDROLINE - TECHNICAL DETAILS

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<td><strong>Axis X</strong>&lt;br&gt;2000mm/78.7”</td>
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<td><strong>Axis Y</strong>&lt;br&gt;1700mm/66.9”</td>
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<td><strong>Axis Z</strong>&lt;br&gt;250mm/9.8”&lt;br&gt;(150mm/5.9”&lt;br&gt;with 5-axes head)</td>
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<td><strong>Axis R</strong>&lt;br&gt;Ø min/max pipes 40-400mm&lt;br&gt;1.6-15.7” with 5-axes head&lt;br&gt;(Ø min/max pipes 40-340mm&lt;br&gt;1.6-13.4” with 5-axes head)</td>
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<td><strong>Length max.</strong>&lt;br&gt;1830mm/72”</td>
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<td><strong>Max. weight</strong>&lt;br&gt;100kg/m</td>
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<td><strong>Support plane</strong>&lt;br&gt;2700x2050mm/106.3x80.7”</td>
<td>4600x2100mm/181.8x82.7”</td>
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<td><strong>Overall</strong>&lt;br&gt;4700x2300x3700mm</td>
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<td>185x90.6x145.6”</td>
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Sul) which belongs to the Group and takes care of sales and assistance in the area.

With regards to its ‘historical’ branches, CMS Brembana is still quite active with them in their relative market areas. One of these is North America, which saw record sales for composite materials in 2008. Other branches include France, of course, and Switzerland.

China is another important market for CMS Brembana where it is carrying out investments, and where it is seeing important sales figures, mainly for composite materials and aluminium.

As far as the glass sector is concerned, the product range is satisfying but, like all machinery manufacturers, CMS Brembana is always convinced that there is something lacking. It carried out continuous revisions of its machinery, one of which dedicated to its float glass cutting table line, in 2009. There is still no intention of starting the production of laminated cutting tables but who knows what the future will bring. These ‘revisions’ will contin-
ue in 2011 with work centres, while the vertical line is also undergoing studies to improve its performance even more.

All PLC and CAD/CAM software are produced in-house, along with, more important still, in-house quality control, thus ensuring that products are as the company says they are.

Institutional videos are available at www.youtube.com, key words: CMS Brembana.