

A production chain with six working centres CMS Brembana for the processing of natural and composite stone

Case History Urban Quarry →





Urban Quarry - Ottawa

Industrial and market
reference in Canada and
North America for the
production of natural stone
kitchen countertops and
interior design

The passion of the owners, the competence of the staff and the technological solutions consistent with the demands of a rising market are all aimed at achieving the highest quality.

To strengthen its growth, URBAN Quarry has decided to set up a new production department consisting of six CMS Brembana working centres, which operates in a coordinated supply chain to ensure the highest returns.



The specialist expertise of Urban Quarry in the field of countertops processing and architectural elements in natural stone has its basis in the entrepreneurial spirit of the founder, Laurent Bellavance, who, since 1986, devoted himself to this activity both passionately and exclusively. The original team has grown to place itself on the Canadian and North American market as a reference in its sector. Currently Urban Quarry is set up as a "product-oriented" company that has been able, however, to open itself up to the most advanced marketing and to the ability to transform their identity: going from "good service provider" to partner in all of its customers' goals, and has become the recognized leader in product quality and design.

The development of Urban Quarry, in terms of level of working volumes and prestige, even won out against its most demanding market counterparts, is the result of an ability to combine the typical professional attention for the detail with the use of the most advanced and reliable technologies. Consistent with this principle the company has also quickly strengthened cooperation with CMS Brembana, whose work centres are considered by Urban Quarry as the technological excellence at the international level and the ideal solution to their needs. This synergic relationship is reaffirmed by the fact that the productive chain in both cutting and finishing, within the establishment of Urban Quarry, is totally entrusted to CMS Brembana machines, where six CNC machines process natural quartz surfaces.

**urban
quarry**
by Marble Unlimited

Coordinated cutting and grinding for processing Cambria quartz surfaces

Automation of pallet change, tilting loading tables and suction cup manipulators, integrated with water-jet technology, guarantee an efficient productivity, able to continuously feed the grinding and drilling department. Highest quality finishing and reliability thanks to the 4 CMS Brembana working centres.



The development of Urban Quarry, borned out by the fact that it has become the leading company and market reference in Canada and North America for the supply of kitchen countertops and vanity tops in Ottawa, ON, has led to the set-up of a new department, fully equipped with CMS Brembana machines.

A production line based on the principle of an efficient dialogue between slab cutting and finishing. The department is in fact composed by two bridge saw machines for cutting (Formax jet with automated pallet change and Sprint 36), and four other CMS Brembana working centres (Speed 36) for drilling, milling and finishing countertops and pieces of natural stone, ensuring high operating efficiency and reduced downtime. The quality and productivity reached by CMS Brembana machines guarantee to fully meet the quality and volume requirements of the final customers.



CMS Brembana Formax Jet with pallet changer

Bridge saw machine with 5 interpolated axes specifically designed for cutting slabs and blocks of marble, granite, and both natural and composite stone, with a maximum worktop up to 4000x2000mm. It is able to perform any type of cut (straight or shaped, vertical or inclined) 3D profiling and pocketing

- Rotating adjustable head $\pm 270^\circ$ (540°) and tilting ($-8^\circ + 90^\circ$) that is both fast and accurate, with robust fork with compact dimensions
- Axis movements on linear guides with recirculating ball sliding blocks
- Combined cutting machine with disc + water-jet
- Automatic handling systems with suction cups
- Equipped with an instant scanning system for the size of the slab and its position on the table by a digital camera



CMS Brembana Sprint 36

Ideal for high production set-ups, it performs cutting and drilling of natural stone, such as Cambria quartz surfaces. In its standard version it can process pieces with a maximum size of 4250x2550mm that may be increased in the case of customized solutions to a greater size.



- Thanks to the automatic lubrication of all the moving parts it does not require any maintenance
- Operating unit for the diamond cutting discs, with the possibility of mounting of drilling tools
- Automatic handling system with suction cups

CMS Brembana Speed

Four working centres in a single department to grind and drill slabs with highest precision and in record time.

Thanks to the decision to purchase four Speed working centres from CMS Brembana, Urban Quarry was able to achieve the highest levels of productivity. The working centre is used in particular to grind and polish the flat edges and to drill and mill the pieces according to the specific needs of the customers.



SINGLE-BLOCK WORKING CENTRE WITH 3-4 INTERPOLATED AXES

CNC Working centre designed for processing slabs and blocks of high thicknesses for marble, granite, and both natural and composite stone. It can achieve any type of contour edge, milling, drilling, countersinking, pocketing, bas-reliefs and writing, quickly and accurately.

- Large sized pre-drilled duraluminium work table, which guarantees perfect flatness, high processing quality and the ability to work many pieces with a single set-up
- Single frame made of thick steel, welded and normalized, that provides strength and rigidity for difficult work and improves the life of the machine
- Up to 52 tool places, in linear or rotating magazines, which allow the machine to perform of a wide range of processes, without having to manually load the tool cones
- Cooling water collection system within the work area
- Tool wear managing system that automatically adapts the tool position, horizontally or vertically, ensuring a high-quality finish

A coordinated process
which increases productivity,
in line with the commitment
to quality that has always
characterised Urban Quarry



The relevant technological investment made recently by Urban Quarry, which has led the company to develop a new high-efficiency fully equipped department with CMS working centres, also stems from the highly competent and professional advice provided by Drolet Machinerie Inc., the technical and commercial managers from Drolet Machinerie were helping the Bellavance family and its team to exactly understand the many benefits of CMS Brembana machines and the reasons that make them the point of reference in the manufacture of floors, and both natural and composite stone pieces, on an international level. They then figured out the configuration and the evolutionary development

A high-efficiency supply
chain set-up with the
assistance of Drolet
Machinerie Inc., the
exclusive CMS Brembana

Urban Quarry's inspiring concept of diligence has always been to "make the best products easily available to its customers"; in other words, the aim is to make the quality and beauty of stone available while avoiding issues and concerns for their representative business partners.

In 2016 the company moved to new premises, which are larger and more modern, but still in Ottawa. The highlight of the plant is the new showroom which displays some of the most interesting and valuable achievements made by Urban Quarry staff. Not only to make their own kitchen tops, which still remain the main activity of the company, but also pieces for bathrooms, for fireplaces and for several other architectural applications.



plan of the department together with the customer, providing a schedule that has proven itself to be optimal. They also placed the management and engineering teams from Urban Quarry in contact with the staff from CMS headquarters, creating the best conditions for a working dialogue. The excellent operating results that Urban Quarry is achieving with its new machining centres are reasons of the highest professional satisfaction on the part of Drolet Machinerie.

CMS Brembana machines in the experience of Urban Quarry



You entrusted your production to CMS Brembana machines, a huge proof of confidence...

Yes, I really trust CMS. I bought the first machine in 2005: at that time I had other open-structure machinery, with no doors or protections but, for safety and cleanliness reasons, we decided to update our equipment with enclosed CNC machines and the Ministry's safety control body carried out checks without making any reservations. CMS has a customer centre just nearby and I had known it for its excellent reputation in the stone industry for several years.

Certainly, but many among your competitors wouldn't have entrusted their whole production to a single machinery manufacturer, choosing a prototype on top of it...

That was my personal choice, I wanted one single supplier in order to deal with one single software on all machines, and to



refer to one only partner for servicing and spare parts. CMS means Construction of Special Machinery, and that is exactly what they do, from CNC machines for eyeglass frame to processing lines, which is what we purchased: CMS is ready to produce customized machines, tailored on the customers' needs and requests. They showed up at our offices with a project plan, we discussed it in detail, I approved it... and here we are. Today the machine cuts approximately 90 slabs in 24 hours. When we work for 16 hours we can cut from 50 to 60 slabs, depending on the workpiece complexity ...

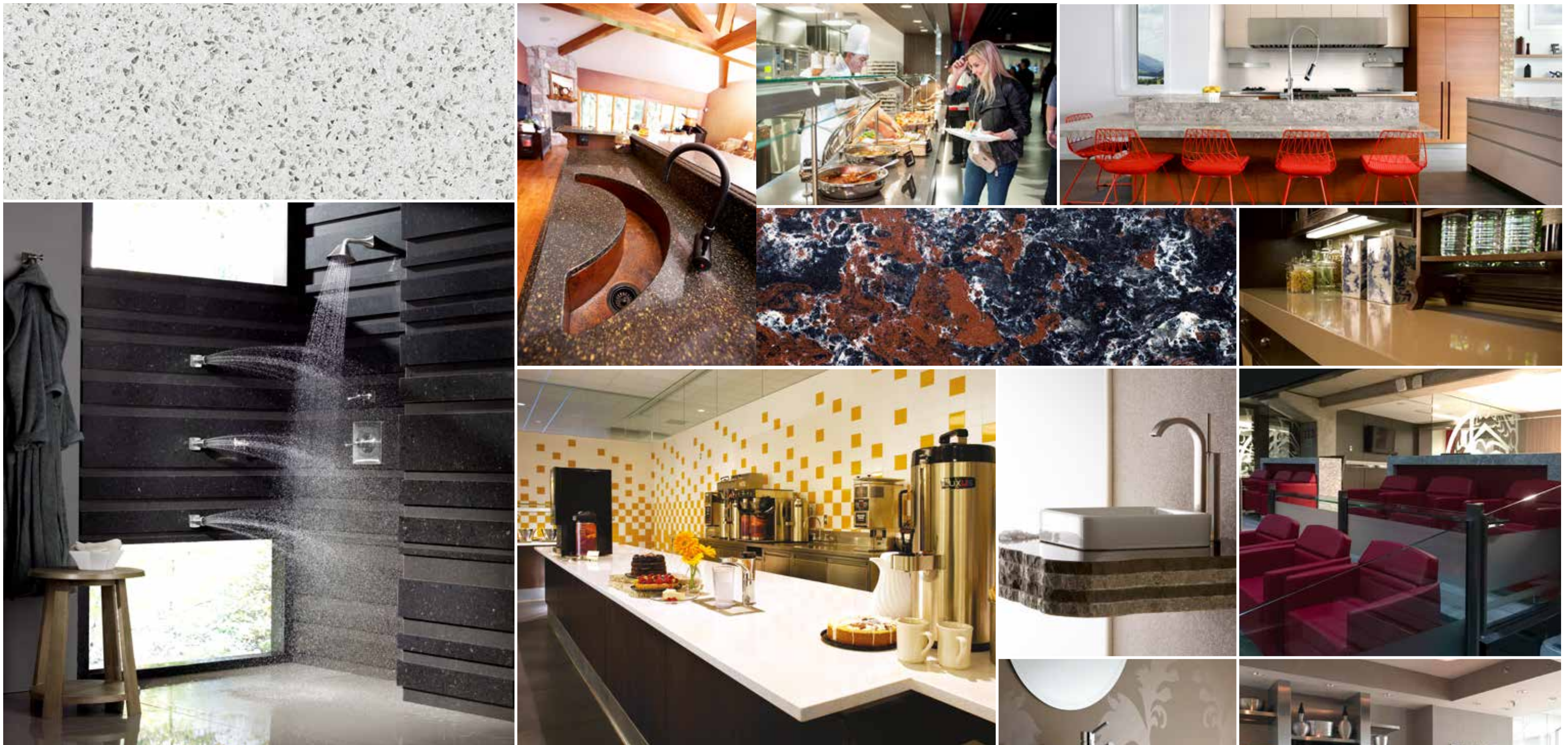
Compared to your previous production capacity?

Well, when we first started cutting stone in 2003, we were cutting 1 slab per hour, then we reached 24 per day; after

that, we were able to cut 45 slabs in 24 hours with the other machines, therefore we practically doubled the production. The clear advantage is that we can load and unload while the cutter is working and the table change does not last longer than two and a half minutes. Besides, with a manipulator on the cutter head, we considerably reduced the number of water-jet cuts, which are very burdensome in terms of time and hourly cost. Also CMS' water-jet is kind of a revolution, with its three-piston pump design, compared to the single-piston pumps of the competition. It is a machine which requires minimum maintenance and I'm particularly proud of this choice.

This is really a great story ...

Yes, indeed!



A showroom that
highlights the accuracy
of the work and the
versatility of Urban Quarry's
production

Formax Jet
Sprint 36
Datasheets

Speed

Formax Jet - Sprint 36

FORMAX-JET / SPRINT 36		
TECHNICAL DATA	FORMAX-JET	SPRINT 36
X axis stroke	138 in	167 in
Y axis stroke	100 ÷ 283 in	100 ÷ 283 in
Z axis stroke	24 in	24 in
Disk diameter	14 ÷ 20 in	14 ÷ 25 in
Motor	25 HP	25 HP
Motor Revolution	0÷4500 rpm	0÷4500 rpm
Maximum working thickness (with 90° disk)	150 mm	8 in
Maximum working thickness (with 45° disk)	105 mm	5 in
Head revolution (4 th axis)	± 270° (540°)	± 270° (540°)
Head inclination (5 th axis)	+8° -90°	+8° -90°
Workbench dimensions	157x79 in	163 x 79 in
Intensifier high pressure	45 kw	45 kw

Speed

SPEED MB (Monobloc)		
TECHNICAL DATA		
X axis stroke		149 in
Y axis stroke		68 ÷ 283 in
Z axis stroke		16 ÷ 35 in
Rotating axis (optional)	C	360° stepless
Tool change positions		12 ÷ 104
ELECTROSPINDLE		
Power		18 HP at 6000 rpm
Revolution		0 ÷ 15000 rpm
Connection		ISO 40
Overall dimensions	A B H	146 ÷ 365 in 286 in, open doors from 100 in
Electrical cabinet		Integrated in the base
Weight		15432 ÷ 33070 lb



www.cmsindustries.it

Founded in 1969 C.M.S. SpA is the head of CMS Industries, a brand that brings together two divisions, with a consolidated turnover of 100 million Euros, four branches and a worldwide sales and customer service network. CMS Industries specializes in the production of multi-axis CNC machining centres, thermoforming machines and water-jet cutting systems. This wide production range enables C.M.S. to meet the needs of several industrial fields: aerospace, automotive, marine industry, wind power generation, eyewear, building, mechanicals, moulds, prototypes, stone, glass and wood processing. This wide range of products, combined with processing quality and precision, offers flexible, innovative and effective solutions to meet the various production process phases or the customers' specific needs.

CMS Brembana Stone Technology designs, engineers and manufactures CNC machining centres for the processing of marble and stone of all types and sizes. It brings together and enhances the important know-how in the industry, gained through the fulfilment of especially demanding customers' and industrial groups' requests with respect to the performance and reliability of the technologies applied to their own production plants. Research capacity, production targeted on specific needs and engineering innovation make **CMS Brembana Stone Technology** a global reference as to manufacturing quality and service capability in the marble and stone industry for multiplied industrial, architectural and design applications.



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