



# Working Centers



## INSPIRED BY YOU

In 1985 Mario Giorgio Prussiani designed the first computer numerical control working center for the machining of marble and granite.

Today there are many models of working centers available on the market and the stone worker's choice isn't an easy one. At first glance they all seem to be the same, but actually, this is not the case, **the materials used are what makes the difference:** the computer numerical control, the motors, the axes drives, the automatic lubrication system, the pneumatic system, the vacuum system. **In CNC working centers an element of key importance is the tool-holding spindle, the "heart" of the machine.**

Our spindles are built with all the devices required for marble and granite machining, they work on average for six-seven years with no problems; they do not require complicated maintenance and are easy and cheap to repair or replace.

**Since 1999 an electronic feeler has been applied to measure the thickness of the piece to be cut.** This device allows for machining with the polished part of the pieces to be machined facing upwards, thereby removing any risk of scratching during loading and unloading operations. The profiling tools fluctuate to follow the surface of the piece perfectly, thus guaranteeing perfect polishing.

The fixing of suction cups to the worktable can be executed, as the Client chooses, either by a mechanical system or by means of a vacuum pump system.

# CNC working centers

## one machine many advantages

### Y-axis movement (bridge beam) with GANTRY system

two motors, one on the right and one on the left, instead of just one in the centre

- Greater stability and high quality of profiling and polishing of the edge.

### Monobloc structure in stabilized steel

- Fast and easy installation.
- Ease of movement of the machine in the future.
- Absence of vibrations.
- No steps to access the machine.

### Fixing system with mechanical clamps and suction cups

- Secure fixing of the pieces, even in small dimensions.
- Fast and precise workings.

### Recirculating roller guides

- More stiffness and more lifetime.

### Automatic and progressive lubrication system with Grease EP1

instead of oil

- Avoids the risk of stains on the material being processed.

### Reduced maintenance, programmed and guided by the CNC

### Electronic presetter for the detection of the tools dimensions

inside the machine instead of outside

- Automatic data input without the operator's intervention.

- Perfect edging on any kind of material.

### Electronic feeler for the detection and compensation of differences in the thickness of the material to be processed

- The tool floats following the material thickness differences assuring an excellent edges quality.

### Polishing face-up

- Polished part of the work-pieces facing upwards.
- No risk of scratching the material.
- More intuitive programming.

### Spindle + Motor with toothed belt transmission, specially designed Prussiani for stone processing

- Minimal maintenance with an average duration of 7/8 years.
- Easy to replace and/or repair.

### Stonecam 3D software

- Ideal system for the realization of any kind of working.
- it calculates the timings and the costs of the workings.

### Attention to the operator's health and safety

- Easy access to the worktop.
- Sliding front doors and side protections against splashing water and/or fragments of material.

### 3 years total warranty

- Thirty-six months of tranquility, which may be extended on request.
- Efficient and qualified service at the customer's premises.



Diamante Plus



Diamante 18



Titanio



Golden Plus



Silver 3000



Silver 2500



Silver 2000



Silver 1500



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# Diamante Plus



# Diamante 18



Technical data	
X axis stroke	3.500 mm ( 138" )
Y axis stroke	2.700 mm ( 106" ) GANTRY
Z axis stroke	350 ( 14" ) / 650 ( 26" )
X axis speed	40 m/min ( 131 ft/min )
Y axis speed	40 m/min ( 131 ft/min )
Z axis speed	10 m/min ( 33 ft/min )
Overall dimensions	
Lenght	6.580 mm ( 21' )
Width	4.650 mm ( 15' )
Height	2.850 ( 9' ) / 3.500 ( 11' )
Approx weight	9.000 kg ( 19.841 lb )

Technical data	
Optional A axis	continuous rotation 360°
Optional B axis	± 1°
Spindle	18 HP S6 ( 13,2 kW ) 0 ÷ 10.000 r.p.m.
Max. absorbed power	19 kW
Air pressure	6 bar
Tool stations	50
Tool holders	ISO 40 stainless steel
Lubrication	automatic and centralized
Certification	CE

Technical data	
X axis stroke	3.500 mm ( 138" )
Y axis stroke	1.800 mm ( 71" ) GANTRY
Z axis stroke	350 ( 14" ) / 650 ( 26" )
X axis speed	40 m/min ( 131 ft/min )
Y axis speed	40 m/min ( 131 ft/min )
Z axis speed	10 m/min ( 33 ft/min )
Overall dimensions	
Lenght	6.580 mm ( 21' )
Width	3.500 mm ( 11' )
Height	2.850 ( 9' ) / 3.500 ( 11' )
Approx weight	7.900 kg ( 17.416 lb )

Technical data	
Optional A axis	continuous rotation 360°
Optional B axis	± 1°
Spindle	18 HP S6 ( 13,2 kW ) 0 ÷ 10.000 r.p.m.
Max. absorbed power	19 kW
Air pressure	6 bar
Tool stations	36
Tool holders	ISO 40 stainless steel
Lubrication	automatic and centralized
Certification	CE



**NEW!!**

# Titanio



Technical data	
X axis stroke	3.800 mm ( 150" )
Y axis stroke	2.000 mm ( 78" ) GANTRY
Z axis stroke	350 mm ( 14" )
A axis rotation	continuous rotation 360°
Optional B axis	± 1°
Overall dimensions	
Length	6.950 mm ( 22' )
Width	3.700 mm ( 12' )
Height	2.850 mm ( 9' )
Approx weight	8.500 kg ( 18.739 lb )

Technical data	
X axis speed	50 m/min ( 164 ft/min )
Y axis speed	50 m/min ( 164 ft/min )
Z axis speed	30 m/min ( 98 ft/min )
Spindle	16 HP S6 ( 11,7 kW )
	0 ÷ 10.000 r.p.m.
Air pressure	6 bar
Tool stations	34
Tool holders	ISO 40 stainless steel
Lubrication	automatic and centralized
Certification	CE

# Golden Plus



Technical data	
X axis stroke	3.300 mm ( 130" )
Y axis stroke	1.600 mm ( 63" ) GANTRY
Z axis stroke	250 mm ( 10" )
X axis speed	40 m/min ( 131 ft/min )
Y axis speed	40 m/min ( 131 ft/min )
Z axis speed	10 m/min ( 33 ft/min )
Overall dimensions	
Length	5.750 mm ( 18' )
Width	3.050 mm ( 10' )
Height	2.250 mm ( 7' )
Approx weight	4.850 kg ( 10.692 lb )

Technical data	
Optional B axis	± 1,5°
Spindle	16 HP S6 ( 11,7 kW )
	0 ÷ 10.000 r.p.m.
Max. absorbed power	17 kW
Air pressure	6 bar
Tool stations	34
Tool holders	ISO 40 stainless steel
Lubrication	automatic and centralized
Certification	CE

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# Silver 3000



# Silver 2500



Technical data		Technical data	
X axis stroke	3.500 mm ( 137" )	Optional B axis	± 1,5°
Y axis stroke	3.000 mm ( 118" ) GANTRY	Spindle	16 HP S6 ( 11,7 kW ) 0 ÷ 10.000 r.p.m.
Z axis stroke	250 mm ( 10" )	Max. absorbed power	17 kW
X axis top speed	60 m/min ( 197 ft/min )	Air pressure	6 bar
Y axis top speed	60 m/min ( 197 ft/min )	Tool stations	34
Z axis top speed	15 m/min ( 49 ft/min )	Tool holders	ISO 40 stainless steel
<b>Overall dimensions</b>		Lubrication	automatic and centralized
Length	5.300 mm ( 17' )	Certification	CE
Width	4.700 mm ( 15' )		
Height	2.100 mm ( 6' )		
Approx weight	5.500 kg ( 12.125 lb )		

Technical data		Technical data	
X axis stroke	3.300 mm ( 130" )	Optional B axis	± 1,5°
Y axis stroke	2.500 mm ( 99" ) GANTRY	Spindle	16 HP S6 ( 11,7 kW ) 0 ÷ 10.000 r.p.m.
Z axis stroke	250 mm ( 10" )	Max. absorbed power	17 kW
X axis top speed	60 m/min ( 197 ft/min )	Air pressure	6 bar
Y axis top speed	60 m/min ( 197 ft/min )	Tool stations	25
Z axis top speed	15 m/min ( 49 ft/min )	Tool holders	ISO 40 stainless steel
<b>Overall dimensions</b>		Lubrication	automatic and centralized
Length	5.300 mm ( 17' )	Certification	CE
Width	4.000 mm ( 13' )		
Height	2.100 mm ( 6' )		
Approx weight	5.000 kg ( 11.023 lb )		

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# Silver 2000



# Silver 1500



Technical data	
X axis stroke	3.300 mm ( 130" )
Y axis stroke	2.000 mm ( 78" ) GANTRY
Z axis stroke	250 mm ( 10" )
X axis top speed	60 m/min ( 197 ft/min )
Y axis top speed	60 m/min ( 197 ft/min )
Z axis top speed	15 m/min ( 49 ft/min )
Overall dimensions	
Lenght	5.300 mm ( 17' )
Width	3.640 mm ( 11' )
Height	2.100 mm ( 6' )
Approx weight	4.500 kg ( 9.920 lb )

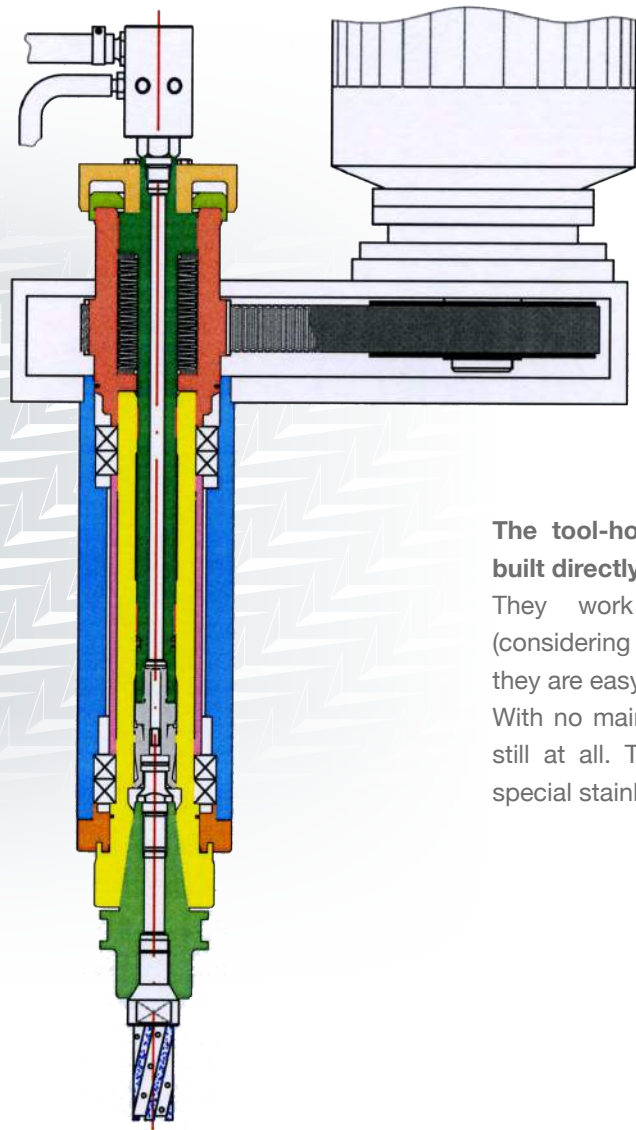
Technical data	
Optional B axis	± 1,5°
Spindle	16 HP S6 ( 11,7 kW )
	0 ÷ 10.000 r.p.m.
Max. absorbed power	17 kW
Air pressure	6 bar
Tool stations	20
Tool holders	ISO 40 stainless steel
Lubrication	automatic and centralized
Certification	CE

Technical data	
X axis stroke	3.300 mm ( 130" )
Y axis stroke	1.500 mm ( 59" ) GANTRY
Z axis stroke	250 mm ( 10" )
X axis top speed	60 m/min ( 197 ft/min )
Y axis top speed	60 m/min ( 197 ft/min )
Z axis top speed	15 m/min ( 49 ft/min )
Overall dimensions	
Lenght	5.300 mm ( 17' )
Width	3.000 mm ( 9' )
Height	2.100 mm ( 6' )
Approx weight	4.000 kg ( 8.818 lb )

Technical data	
Optional B axis	± 1,5°
Spindle	16 HP S6 ( 11,7 kW )
	0 ÷ 10.000 r.p.m.
Max. absorbed power	17 kW
Air pressure	6 bar
Tool stations	15
Tool holders	ISO 40 stainless steel
Lubrication	automatic and centralized
Certification	CE



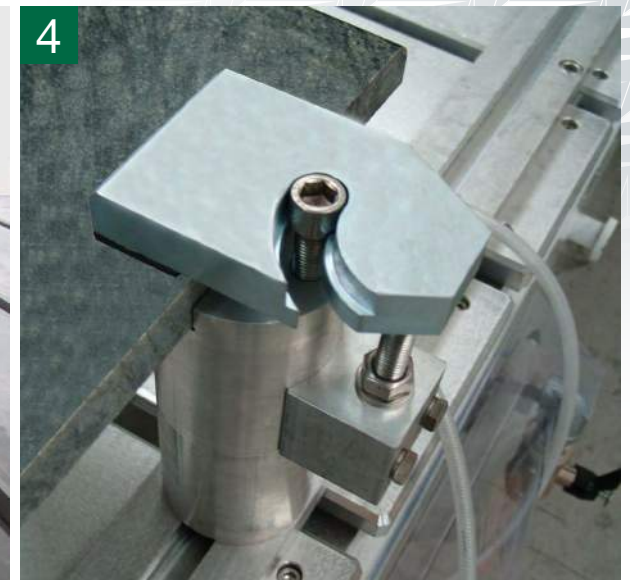
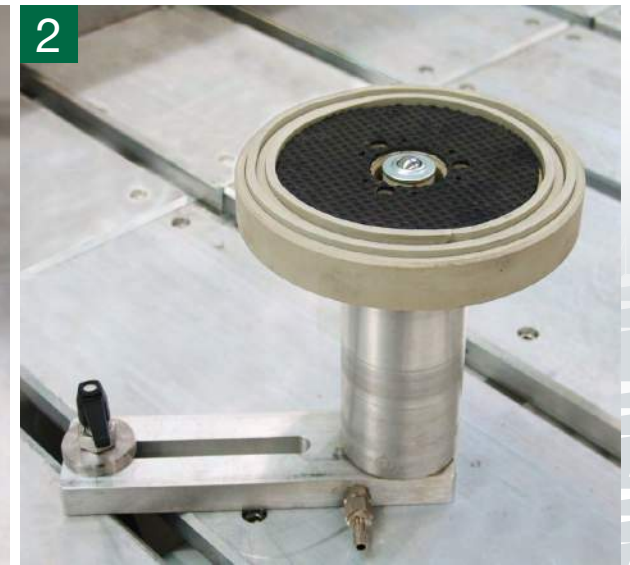
# The spindle the heart of the machine



The tool-holder spindles are projected and built directly from Prussiani Engineering. They work on average six-seven years (considering a work shift) without problems and they are easy to repair or replace. With no maintenance costs and machine stand still at all. The tool-holder tangs are made of special stainless steel.

# Innovative devices

1. Double vacuum suction cups.
2. Suction cup with mechanical fixing and central sphere.
3. Suction cup with mechanical fixing.
4. Mechanical tongs for a secure fixing of the work-pieces.



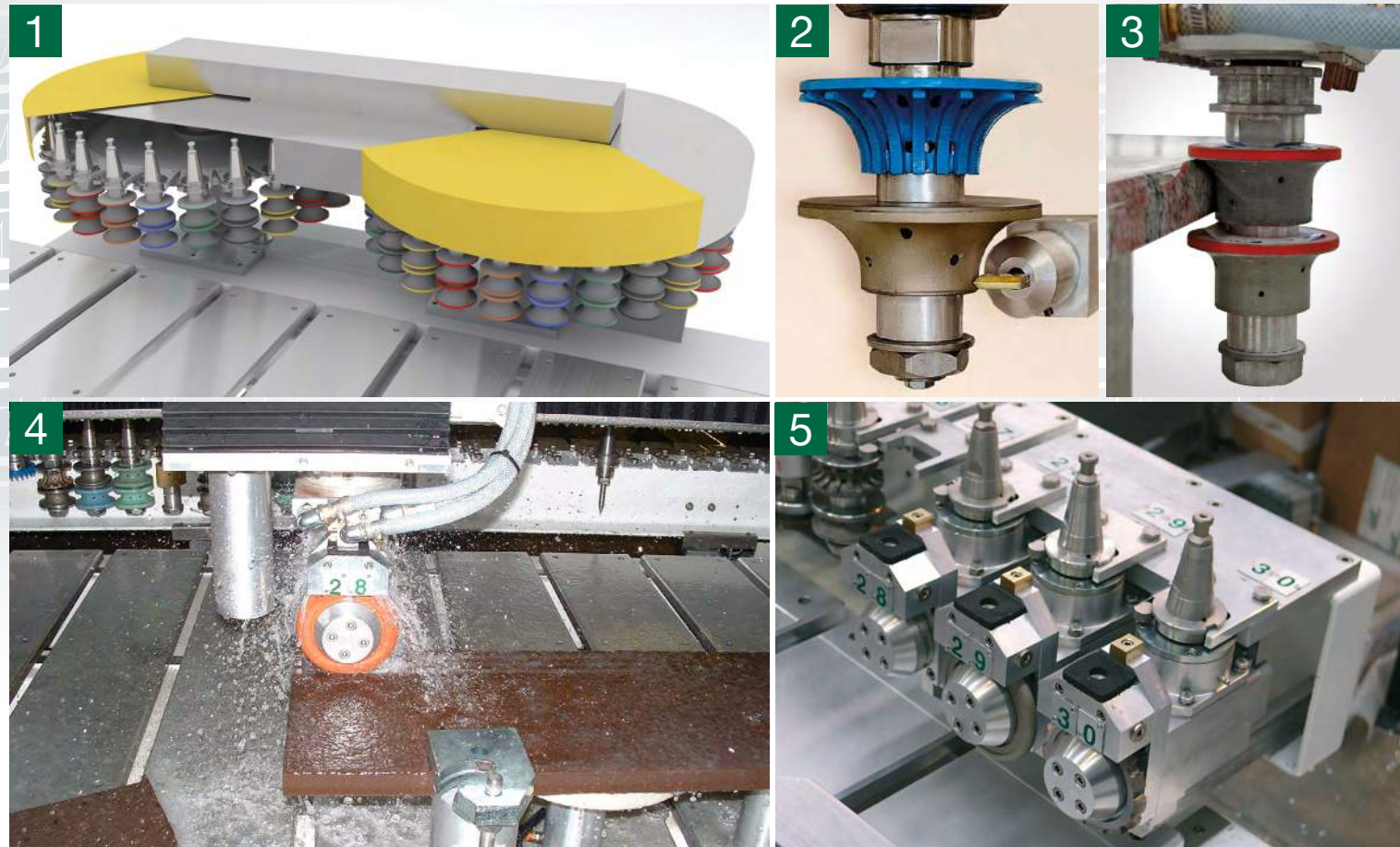
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# Innovative devices

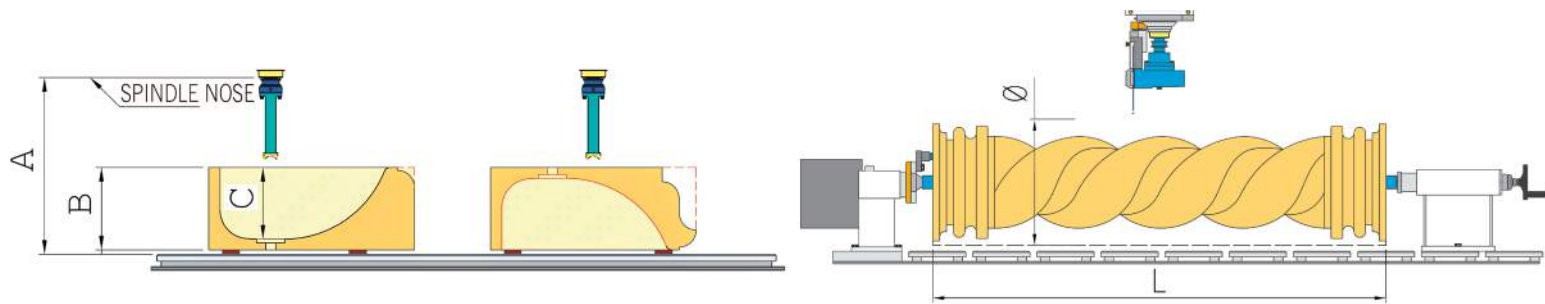
1. Revolver tool store with 50 stations on Diamante Plus.
2. Electronic presetting.
3. Tool holder tangs that can support two profiling tools.
4. Angular driving gear for a quick execution and polishing of the grooves on the kitchen tops.
5. Detail of angular driving gears.



6. Angular driving gears for blades.
7. Aligned tools store with stainless steel cover.
8. Automatic electronic feeler for measuring the work-piece thickness.



# Cutting depth



Machine Models	A (mm - in)	B (mm - in)	C (mm - in)	Ø (mm - in)	L (mm - in)
Golden Plus axis stroke Z 250 mm ( 10" )	500 ( 20" )	250 ( 10" )	230 ( 9" )	-	-
Diamante 18 and Diamante Plus axis stroke Z 350 mm ( 14" )	630 ( 25" )	310 ( 12" )	300 ( 11" )	-	-
Diamante 18 and Diamante Plus axis stroke Z 650 mm ( 26" )	935 ( 37" )	500 ( 20" )	410 ( 16" )	500 ( 20" )	3.300 ( 130" )
Silver 1500/2000/2500/3000 axis stroke Z 250 mm ( 10" )	510 ( 20" )	250 ( 10" )	240 ( 9" )	-	-

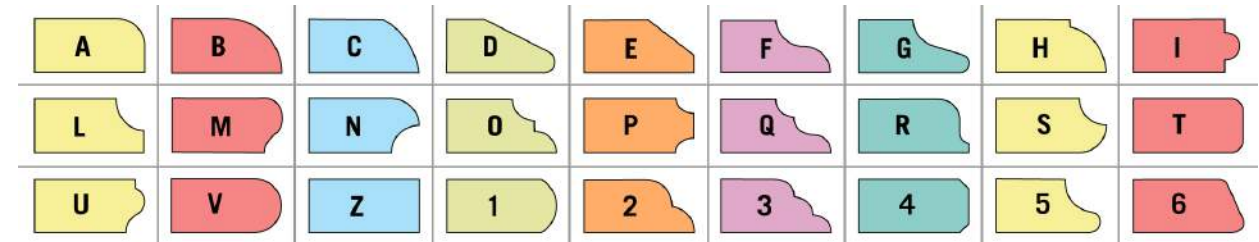
# Security system

Prussian Engineering has always focused on the safety issues of machines operators. It has been indeed the first one on the market to introduce the frontal doors for the automatic bridge saws or milling machines. The company scrupulously follows the security requirements of the **CE marking** and the **Machinery Directive 2006/42/EC**.

1. Safety electric switch on the frontal doors and a tamper proof codified sensor.
2. Aluminium sliding frontal doors with 5 mm thickness plexiglass windows.
3. Safety PLC for the slow speed control of the axes when the doors are open for the manual movements of the machine.



## Edge profiles



## Tool-holder tangs



## Tools



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# Tools



# Tools



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# After Sales

When considering the purchase of any piece of capital equipment, it is essential to take in consideration the After Sales service and support that a supplier can give.

**Acknowledging the fact that, when buying a technologically advanced machine, Customers require efficient and rapid assistance, we have set-up a team of technicians in charge of this essential service, which has now become one of our strengths.**

Using on-line systems, our technicians work with the Customers to clarify possible doubts about the programming of a certain working piece, to assist them investigating our CAD/CAM softwares' potentialities and to support them with examples.

Our technicians, highly skilled and extremely courteous, know that a Customers in need must be supported promptly and professionally.



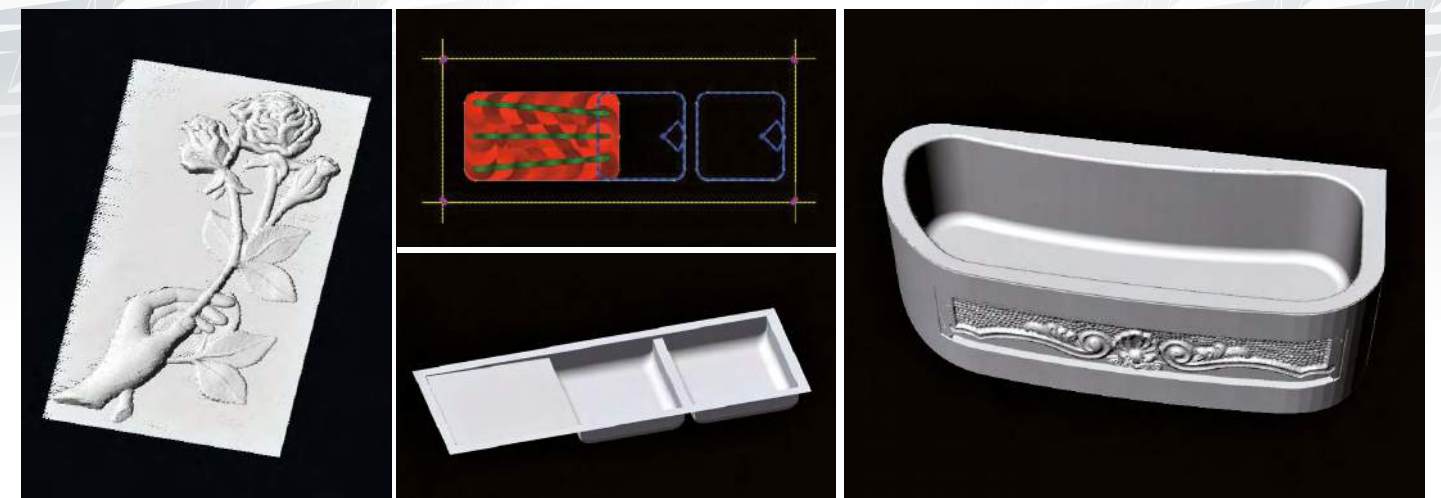
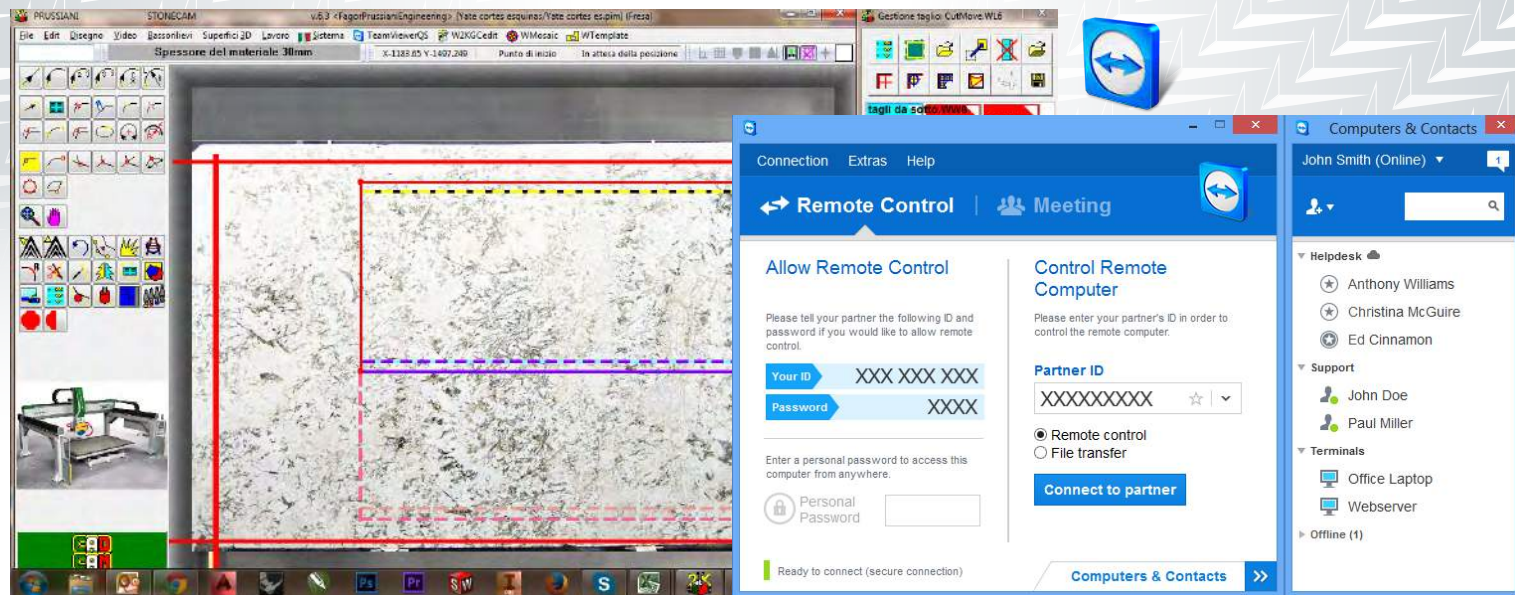
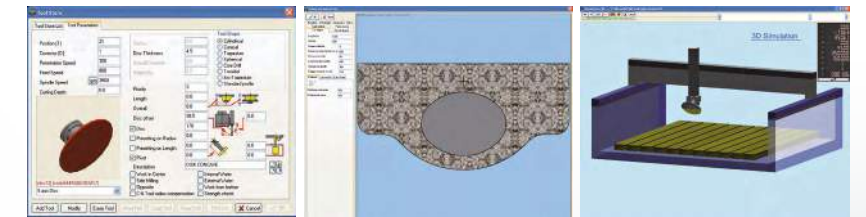
# Stone - CAM 3D

The **STONECAM 3D** software is a modern three-dimensional CAD/CAM specifically created for stone workers.

It is user-friendly, just requiring a few days of training to acquire all the necessary skills needed. **The software calculates the necessary processing time.** It is the ideal program for bathroom and kitchen tops, tables, frames, bas-reliefs, columns, capitals, sculptures and much more.

**Our service "HELP ME" allows us, through the online assistance via Internet, to assist customers and solve any doubts, omissions, or anything else.**

STONECAM 3D can also read files created in DXF, STL, POV, ISO, HPGL, WMF and BMP formats, and it can interface with programs for the solid surfaces modeling such as Rhinoceros, Inventors and others.



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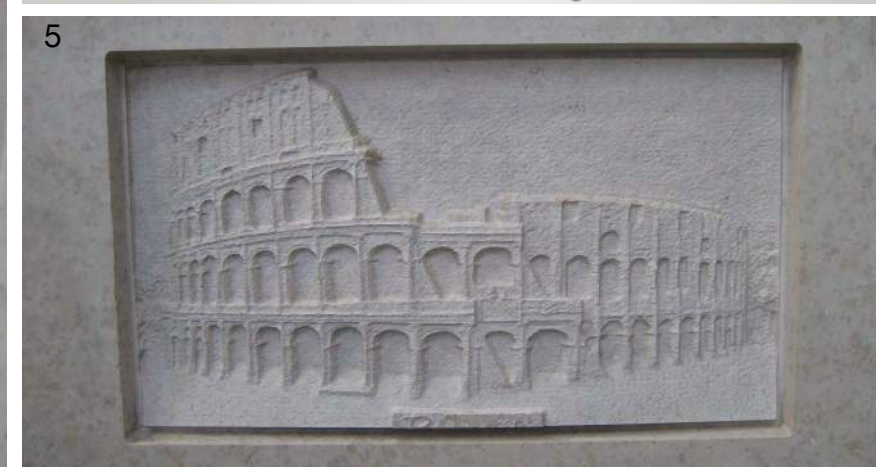
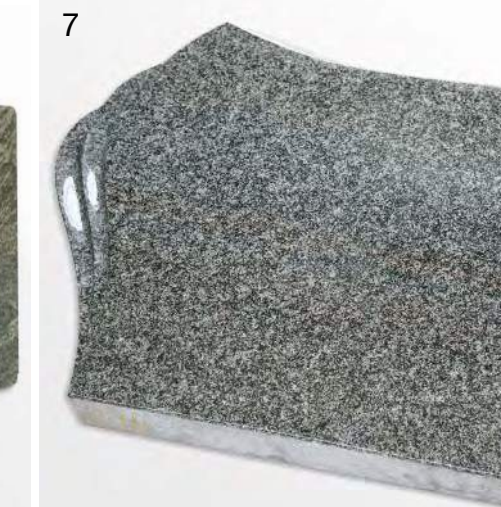
# infinite creations



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