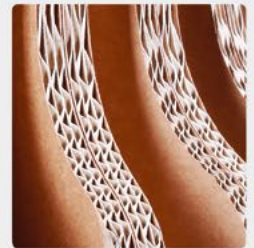
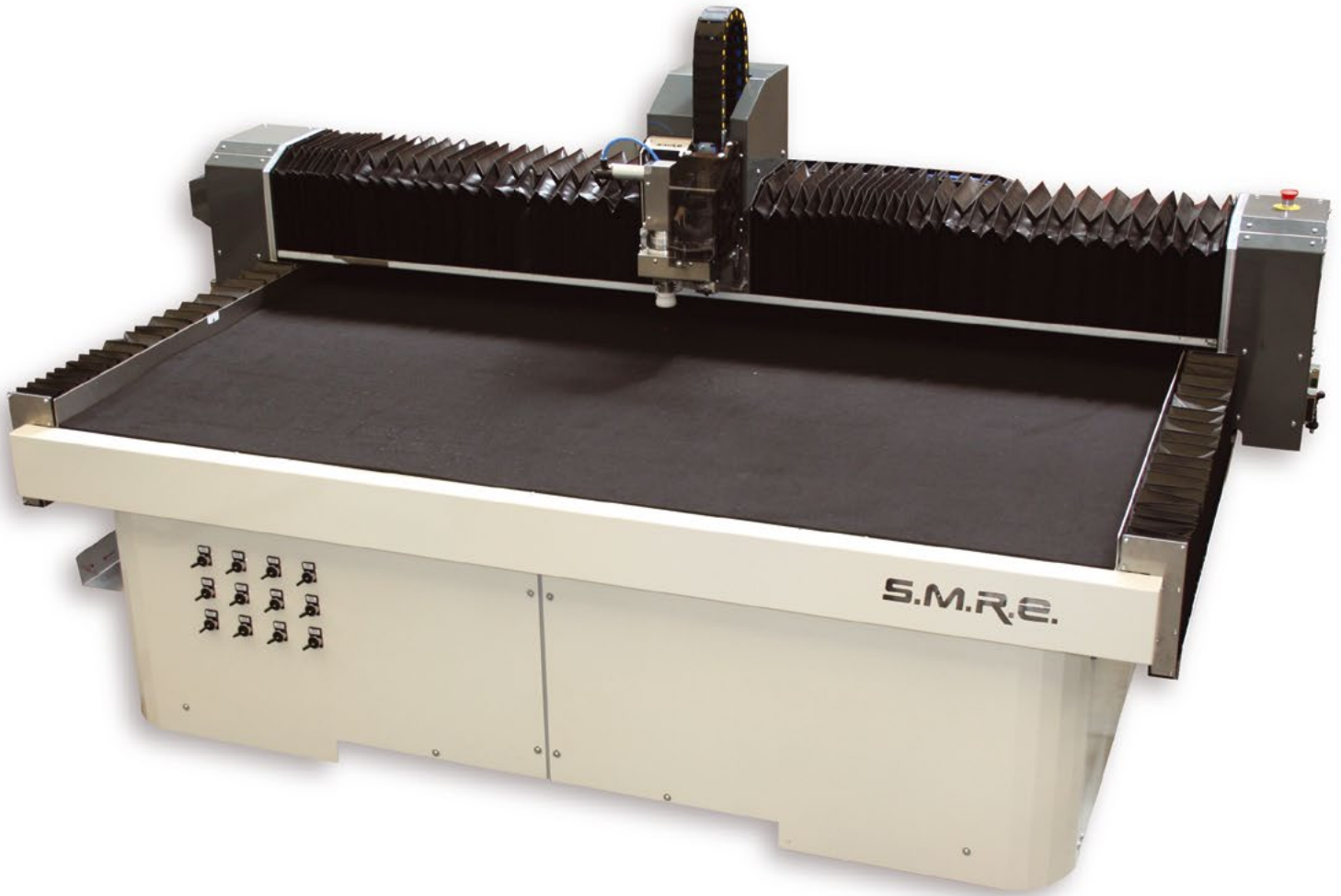
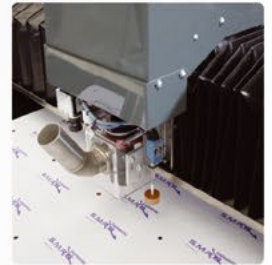




SM-380-TA Automated multiple tool cutting plotter





SM-380-TA Automated multiple tool cutting plotter

SM-380-TA is a powerful machine of reduced footprint with an indestructible, mono-block structure in steel and aluminum, available in several compact dimensions, that can install multiple cutting, marking and scanning instruments *individually* or *simultaneously*. Very competitive, both in purchase price and operating costs, the machine offers top quality cutting and marking of a wide range of materials and fabrics.

Motion is generated by a highly efficient re-circulating ball screw mechanism with 5 powerful servo motors with integrated electronics on the X, Y, Z and W axes. The machine can be equipped with cutting and marking tools with a choice of lasers ranging from 25W up to 400W, a powerful electric milling head or router (up to 2,2 kW, 40.000 rpm) for 2D or 3D milling, or a multi-tool head holding 2 tangential tools (an oscillating knife, a rotary blade, a drag knife or a V-cut blade), a marker pen and a laser pointer. Laser cutting and marking tool and milling head can be installed *simultaneously*.

Tracking Power Control adjusts the power of the laser beam according to the characteristics of the material that is cut and digitally synchronizes the power of the laser with the moving speed of the tool. TPC enables the machine to laser cut paper, cardboard or very light fabrics without leaving burning marks, and cut and mark materials such as Plexiglas with extreme precision.

The dynamic cutting frame, or zero-point, can be chosen with the joystick on the tool bridge or on the computer. The machine starts to cut wherever the operator decides to, an option that is particularly useful when cutting discard materials, or when processing fabrics or materials – like leather – that are not of the same quality everywhere.

To secure the processed materials on the work top the machine is equipped with a powerful vacuum system. The vacuumed working surface can be sectioned to concentrate the suction power in a particular area.

Easy Works Xtreme CAD/CAM software – compatible with all current CAD programs available on the market with output in .dxf and .eps – makes working with the SM-380-TA easy and very efficient. The operator can select a great number of programs, like an automatic nesting module that fits the even very complex shapes on the work top like a puzzle, optimizes the cutting sequence and reduces the discards and the necessary production time.

For the production of:

- ▶ Visual advertisement & signs
- ▶ Plaques, gadgets, name tags
- ▶ Shoes & leather accessories
- ▶ Wood & intarsia
- ▶ Products in technical fabrics and foams and many more...



Optional programs for 3D routing and for laser printing of raster images are available. For the sign and digital printing industry S.M.R.E. developed Digi-View software with integrated camera to read reference marks and automatically correct position, stretching and shrinkage of the images caused by the printing process.

Its competitive price makes the machine very attractive even for smaller or starting businesses. Its versatility makes SM-380-TA the perfect solution for any manufacturer that processes a range of fabrics and materials with very different characteristics on one single machine.

Applications:

- ▶ Cutting, milling and marking of a wide range of fabrics and materials, ranging from Forex, Plexiglas, Kapa-Mount, Dibond, metals, cardboard, Reboard, wood, leather, foam, to PVC, polyester, acrylic and many other technical and industrial fabrics.

Installable tools:

- ▶ Tangential cutting group w/ fixed cutter (drag knife)
- ▶ Tangential cutting group w/ round blade cutter
- ▶ Tangential cutting group w/ oscillating cutter
- ▶ Tangential cutting group w/ motorized cutter
- ▶ Tangential group w/ motorized rotating punching tool
- ▶ 30-80W cutting laser with full accessories (optics, air cooled)
- ▶ 100-400W cutting laser with full accessories (optics, chiller)
- ▶ Milling head assembly: electric, 800 W 24.000 rpm with motorized Z-axis
- ▶ Milling head assembly: electric, 2,2 kW 40.000 rpm with motorized Z-axis and fast lock-unlock system
- ▶ Standard socket for commercial "pen" markers

Installable accessories:

- ▶ Red laser pointer
- ▶ Vacuum turbine for work top
- ▶ System for sectioning of vacuum areas
- ▶ System for scanning external shapes
- ▶ System for projecting the cutting shape on work top
- ▶ Digi-View Cutting system (camera and software for recognition of reference marks)

Installable software:

- ▶ Easy Work Xtreme CAD/CAM for 2D cutting
- ▶ Automatic nesting module for complex shapes
- ▶ Optional raster imaging with cutting laser
- ▶ ArtCAM Express CAD/CAM for 3D milling

TECHNICAL SPECIFICATIONS

Usable cutting frame:		Power and air (w/ 100W laser and standard accessories):	
Available widths:	0,9 - 2 m	Voltage:	32 Amp, 3 phases + N + E, 380 Vac
Standard length:	1,2 - 1,5 m	Power consumption:	10 kW
Max. length:	1,5 m	Air consumption:	300 nl/1' @ 6 bar
Footprint (approximate):		Weight (w/ 100W laser and standard accessories):	
Width at the widest point:	usable width + 1,1 m	0,9 x 1,2 m	1.400 Kg
Length:	usable length + 0,8 m	2 x 1,5 m	1.650 Kg
Transmission: re-circulating ball screw		Speed :	
X-axis (bridge):	brushless motor	Average linear cutting speed*:	20 - 30 m/min
Y-axis:	2 brushless motors	Max. moving speed:	25 - 40 m/min
Z-axis:	brushless motor	Max. acceleration:	0,35 G (m/sec ²)
W-axis:	brushless motor	*Actual speed depends on fabric or material and application.	
Typical tool / accessory combination:		Precision:	
CO ₂ Cutting and marking laser, milling head assembly (router) "pen" marker, laser pointer, Digi-View Cutting system		Accuracy and repeatability of the axes motion:	0,1 mm
		Minimum diameter of the cut:	0,1 mm
Processing of 3D designs (w/ router): optional		Sectioning of the vacuumed surface: optional	
Raster imaging (w/ laser): optional		Operative system: Windows embedded	
Pneumatic and electronic components*:		Certification:	
Standard industrial: Omron, Bosch Rexroth, Promax, SMC, SKF, Bonfiglioli, AccuStream		006/42/EC; 2006/95/EC; 2004/108/EC; EN ISO 12100; EN ISO 13857; EN 349; EN ISO 4414; EN ISO 13850; EN 60204-1; EN ISO 13849-1	
*May vary without previous notice from manufacturer.			

Given values and shown images are indications and may vary without previous notice from manufacturer.





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manufacturing
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S.M.R.E. Engineering – The global manufacturing solution

S.M.R.E. Engineering is a dynamic Italian company built on a *young and strongly motivated* group of *highly skilled professionals*, specialized in the design and construction of industrial machines – *global manufacturing solutions*, as we like to call them.

S.M.R.E. builds welding, sewing and cutting machines, and special, custom made machinery to process technical fabrics and flexible materials (FLEX TEX), as well as machines to work rigid and semi-rigid materials (HEAVY DUTY).

Our aim is to enhance efficiency and optimize productivity by combining new technologies and traditional manufacturing methods, by integrating mechanics, pneumatics, electronics and software, and create a complete solution for our customers' production requirements.

With over 900 manufacturing solutions supplied to 35 nations and 5 continents S.M.R.E. is a leading manufacturer of industrial production lines.

Tailor made solutions

Our customers are the focus of what we do. S.M.R.E. has created a company culture in which the key element is understanding – and meeting – our customers' needs. Our machines not only distinguish themselves with their quality and revolutionary technology, but also because they are *tailor made* according to the specific requirements of our customers.

Visiting S.M.R.E.

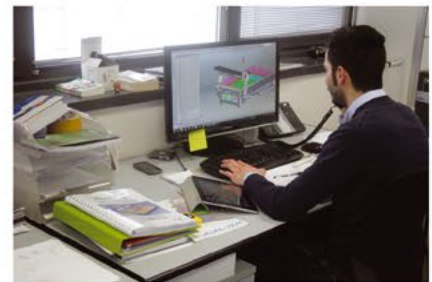
We are glad to receive visitors to our head quarters in Umbertide, in the heart of Italy. Your visit is an outstanding occasion not only to see our plant and look behind the scenes, but to meet the people that design, build and test our machines, and discuss your needs with an expert.

Our company is 30 minutes away from Perugia airport and an approximate 2 hours from Rome, Florence and Bologna. There are several hotels nearby that offer special rates for S.M.R.E. guests.

Our staff is available to assist you in making arrangements for your visit. Please contact us at info@smre.it.

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