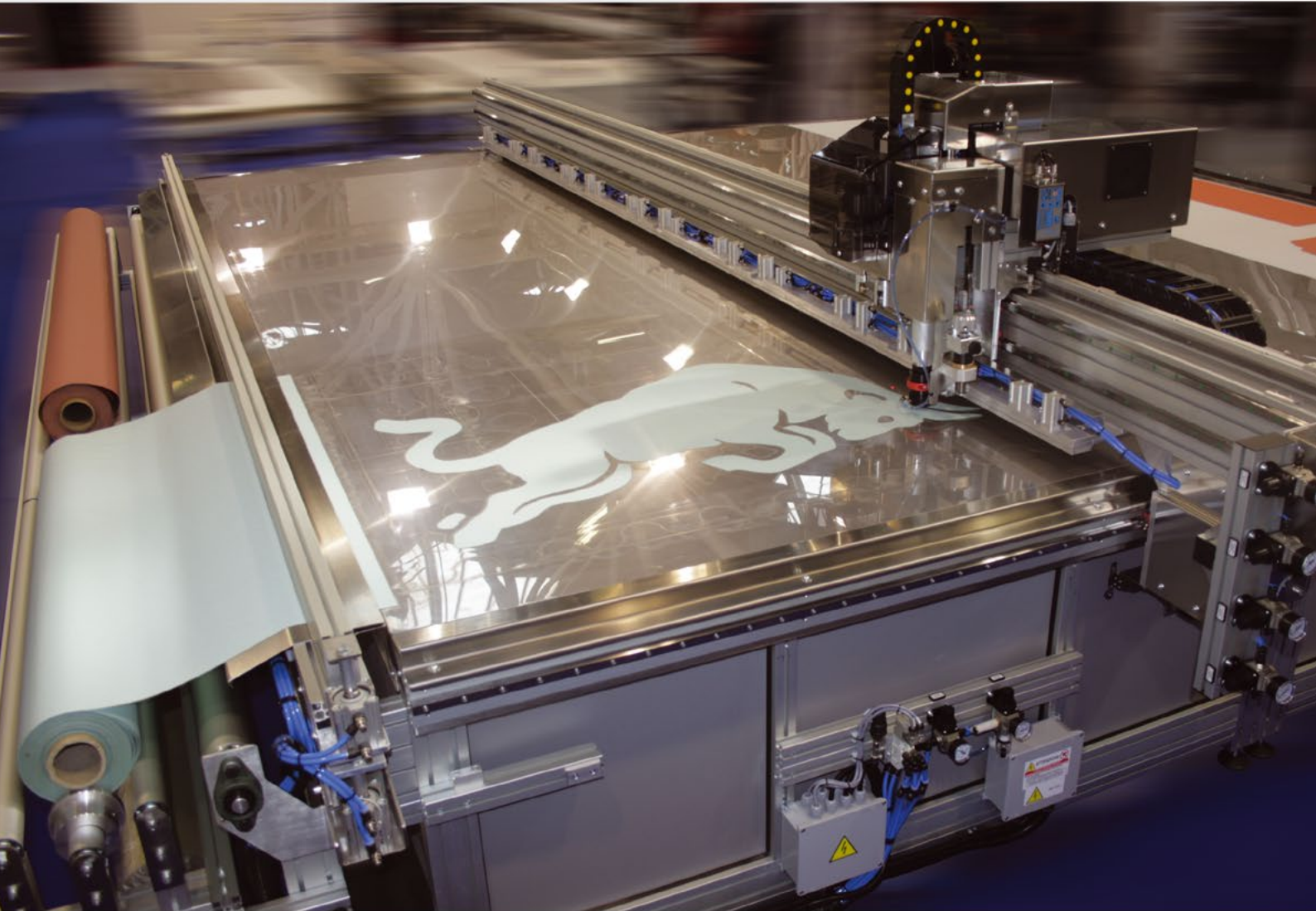




SM-375-TA Multiple tool static bed cutting plotter for technical fabrics





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SM-375-TA is a high performance industrial cutting plotter designed to install multiple cutting and marking tools for technical fabrics. Main features are its high speed, high precision, and user-friendliness, its great versatility and its competitive price.

With its solid structure the machine is ready to take on even the toughest cutting jobs. Its modularity allows to adapt the dimensions of the machine to the production requirements of every manufacturer. Multiple tools and accessories can be installed simultaneously on the tool bridge ensuring total versatility.

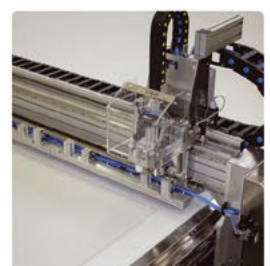
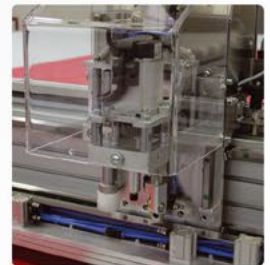
Motion is created by highly efficient brushless servomotors, controlled by industrial CNC with ISO programming and running on massive steel racks to guarantee maximum control, speed and acceleration. A powerful vacuum system plus an optional system of additional pressing bars secure the fabric to the work top, guaranteeing high precision cuts in X and Y direction even with hard to handle "breathing" fabrics.

The machine works in full automatic cycles. A computer controlled grip-and-pull system pulls the fabric off of the roll, the machine cross cuts the fabric to size, spreads the sheet on the work top, then starts the cutting job according to the programmed CAD pattern. The dynamic cutting frame, or zero-point, can be chosen with the joystick on the tool bridge or on the computer, thus enabling the machine to process not only fabrics off of the roll, but manually placed sheets as well.

Laser cutting is done using Tracking Power Control. TPC adjusts the power of the laser beam according to the characteristics of the fabric that is cut and digitally synchronizes the power of the laser with the moving speed of the tools bridge. TPC-technology assures extreme cutting quality, even when highly complex patterns are cut. TPC makes truly extraordinary cutting quality possible on fabrics for which laser cutting is commonly thought impossible, like light colored polyester or acrylic.

Easy Works Extreme CAD/CAM software – compatible with all CAD programs currently available on the market with output in .dxf or .eps – makes working with SM-375-TA easy and very efficient. The operator can select a great number of macro's or additional programs, like an automatic nesting module that fits the various patterns on the work top like a puzzle, optimizes the cutting sequence, increases the speed while greatly reducing discards.

With more than 300 cutting plotters supplied to leading manufacturers in a wide range of industries everywhere in the world, SM-375-TA is a thoroughly tested and highly reliable production solution, powerful but user-friendly, and very competitively priced.



For the production of:

- | | | |
|----------------------|-----------------------|--------------------------|
| ▶ Awnings & blinds | ▶ Building wraps | ▶ Containments bladders |
| ▶ Pergola's | ▶ Tents & shelters | ▶ Geomembranes |
| ▶ Banners & signs | ▶ Tarpaulins | ▶ Industrial speed doors |
| ▶ Sails & sun shades | ▶ Pool covers | ▶ Shipyard doors |
| ▶ PVC covers | ▶ Inflatable products | ▶ Wind breaker barriers |
| ▶ Tunnels | ▶ Cinema screens | |



The ideal solution for manufacturers who need to perform fast, high quality cuts on a wide range of technical and industrial fabrics.

Applications:

- ▶ Cutting and marking of technical fabrics.
- ▶ Cutting and marking of heavy industrial textiles like PVC, crystal (clear) PVC, or PTFE.

Installable tools:

- ▶ Tangential cutting group w/ fixed cutter (drag knife)
- ▶ Tangential cutting group w/ round blade cutter (Ø 28 mm)
- ▶ Tangential cutting group w/ round blade cutter (Ø 40 mm)
- ▶ Tangential cutting group w/ ultrasound cutter
- ▶ Tangential cutting group w/ crush cut
- ▶ Tangential cutting group w/ creasing head
- ▶ 30W cutting laser with full accessories (optics, air cooled)
- ▶ 60W cutting laser with full accessories (optics, air cooled)
- ▶ Standard socket for commercial "pen" markers
- ▶ UV marker for invisible marking
- ▶ Vacuum turbine for work top
- ▶ Additional vacuum turbine for work top
- ▶ System for sectioning of vacuum areas
- ▶ Motorized unwinding system with automatic correction of roll position
- ▶ 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)
- ▶ Integrated fabric roll warehouse

Installable accessories:

- ▶ Red laser pointer
- ▶ Linear laser pointer
- ▶ Automatic grip-and-pull system to spread fabric on work top
- ▶ Additional combined pressing bars group for "breathing" fabrics

Installable software:

- ▶ Easy Work Xtreme CAD/CAM for 2D cutting
- ▶ Dynamic link to order database with nesting for squares and rectangles
- ▶ Automatic nesting module for complex shapes
- ▶ Split box module to split large images and calculate additional processing

TECHNICAL SPECIFICATIONS

Usable cutting frame:

Available widths:	1,6 - 3,5 - 4 m	Voltage:	32 Amp, 3 phases + N + E, 380 Vac
Standard length:	5 m	Power consumption:	7,5 kW
Max. length:	15 m	Air consumption:	300 nl/1' @ 6 bar

Footprint (approximate):

Width at the widest point:	usable width + 1,5 m	3,2 x 5 m machine	2.650 Kg
Length:	usable length + 0,9 m		

Transmission:

X-axis:	2 brushless motors
Y-axis:	1 brushless motor
Z-axis:	pneumatic
W-axis (tangential):	1 brushless motor

Speed (w/ round blade cutter):

Average linear cutting speed*:	25 m/min
Max. linear moving speed:	35 m/min
Max. acceleration:	0,15 G (m/sec ²)

*Actual speed depends on fabric or material and application.

Typical tool / accessory combination:

Round blade cutter, crush cut, cutting /marking laser, marking pen, laser pointer

Precision:

Accuracy and repeatability of the axes motion:	0,1 mm
Minimum diameter of the cut (w/ drag knife)	2 mm

Automatic grip-and-pull system: included

Tracking Power Control (laser cutting): included

Additional pressing bar for breathing fabrics: optional

Operative system: Windows embedded

Pneumatic and electronic components*:

Standard industrial: Omron, Bosch Rexroth, ISAC, SMC, SKF, Bonfiglioli

Certification:

2006/42/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.





The global
manufacturing
solution

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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.

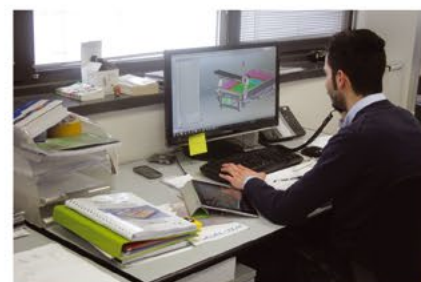
We are glad to receive visitors to our head quarters in Umbertide, in the heart of Italy. Your visit is an outstanding occasion not only to see our plant and look behind the scenes, but to meet the people that design, build and test our machines, and discuss your needs with an expert.

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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