

SM-320-TA

SM-320-TA CONVEYOR CUTTING PLOTTER WITH REVOLUTIONARY FABRIC TRANSPORTATION SYSTEM AND MULTI-PLY CONVEYING BELT

SM-320-TA is an industrial conveyor plotter for the continuous cutting of technical textiles in large and very large shapes. The SM-320-TA is the only conveyor in the world that was specifically designed for the production of tension structures, large shade sails, (truck) covers and tarpaulins. In designing the machine, S.M.R.E. has focused on solving the problems of conventional conveying systems: fabric pulling power, fabric movement and cutting precision.

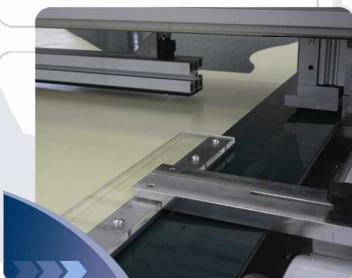
S.M.R.E. has developed an innovative solution for the transportation of the fabric that combines a special blocking system with a revolutionary strong belt. During the transport of the fabric, two differentiated systems – two lateral grippers and a horizontal pressing bar – attached to the cutting bridge simultaneously block both the belt and the fabric, so that their movements are completely synchronized. Moreover, during the transport cycle, the work top vacuum system is never shut off completely, but remains active at a lower power level to keep the material in place. When the cutting is resumed, the vacuum power is automatically restored to the level set for cutting. These solutions guarantee extreme precision in subsequent cuts over long distances and very large shapes.

The transport belt is made of an extremely sturdy, multi-ply industrial material that, when used correctly, can handle years of intense production without needing to be replaced. The S.M.R.E. belt has such high resistance that it goes well beyond comparison with the conveyor belts installed on machines constructed by other manufacturers. The difference is not only its duration, but also its reliability and the quality of the cut. The multi-ply material in the S.M.R.E. belt is composed of two macro layers: one on which the blade works, and the other as support. The second layer will remain completely untouched during cutting. Hence the belt will not be subject to deformations as happens with conventional, single-ply belts which are deformed after just a few hours of cutting and can severely compromise the machine's functionality and cutting precision.

Several different cutting or marking tools can be simultaneously installed on the SM-320-TA so that the operator has the right tool on hand for cutting any type of material at all times.

The Easy Works Extreme Cad/Cam software dedicated to this conveyor makes the cutting easy and extremely efficient. The S.M.R.E. conveyor features a dynamic cutting window that automatically adapts to the design to be cut. In addition to the Easy Works Xtreme program, the operator can select countless working options, like an automatic "nesting" program that fits the various cutting shapes on the work top, optimizes the cutting sequence and greatly reduces discards. The machines also features a powerful calculation module called the "split box" that can manage and break down very large shapes into smaller, "workable" pieces. The S.M.R.E. software is compatible with all current Cad/Cam programs available on the market and can import and manage files written in DXF and EPS formats.

The SM-320-TA is therefore the perfect machine for the production of tensile structures, shade sails, (truck) covers and tarpaulins. Ready to take on the even toughest cutting job with extreme precision.



ADVANTAGES:

- Extremely simple, user-friendly control panel
- Highly reliable, very sturdy industrial components
- Thoroughly tested, fully guaranteed industrial computer
- High quality commercial electronics with worldwide warranty
- Brushless servomotor drive controlled by industrial CNC with ISO programming
- Super strong steel racks
- Extremely sturdy, heavy duty steel structure for the cutting of XXL shapes and heavy industrial fabrics
- Simultaneous installation of multiple cutting and marking tools: no need to change tools between jobs, the right tools for the processed materials are always on hand
- Requires reduced space to cut XXL sized materials
- Dynamic cutting frame: the zero-point - the point where the machine starts to cut - can be decided manually or through the computer
- Cutting widths up to 3.200 mm – infinite cutting lengths
- Revolutionary multi-ply conveyor belt: super strong, extremely precise and very reliable
- Innovative system for fabric transportation with double lateral grippers and horizontal pressing bar guarantees fast and precise cutting of XXL shapes
- Great strength when pulling the processed fabric off the roll
- Especially developed software makes production very easy and extremely efficient

SM-320-TA IS AVAILABLE IN THE FOLLOWING DIMENSIONS:

- 1600 (cutting bridge) x 3000 mm usable cutting frame
- 2000 (cutting bridge) x 3000 mm usable cutting frame
- 2500 (cutting bridge) x 3000 mm usable cutting frame
- 3200 (cutting bridge) x 3000 mm usable cutting frame

INSTALLABLE TOOLS AND ACCESSORIES:

Tangential groups:

- Tangential cutting group (up to 3 groups installable)
- Tangential cutting group w/ oscillating cutter oscillation +/- 3 mm
- Tangential cutting group w/ motorized cutter

Cutting heads installable on tangential groups:

- Fixed cutter (drag knife) for tangential cutting group
- Round blade cutter diameter 28 mm / 40 mm.
- Creasing head diameter 28 mm.

Marking tools:

- Standard socket for commercial markers
- UV marker for invisible marking

Laser pointers:

- Red laser pointer with punctiform geometry
- Linear red laser pointer

INSTALLABLE SOFTWARE:

- Easy Work Xtreme Cad/Cam for 2D cutting
- Dynamic link to company database
- Automatic nesting for complex shapes
- Split box for splitting large images and calculate additional workings