



SM-210-SA

SM-210-SA MOVING HEAD LINE WELDER WITH HOT AIR, ROTOSONIC OR LIQUID GLUE TECHNOLOGY

The automatic line welding system SM-210-SA is the fruit of S.M.R.E.'s vast experience in the field of line gluing and welding of technical fabrics and textiles. Ever since its foundation in 1999 S.M.R.E. has been an undisputed pioneer in this sector. S.M.R.E. was the company ever to introduce the Liquid Glue technology and developed it to perfection. The SM-210-SA line bonding machine was specifically developed for manufacturers who bond various technical fabrics and textiles. Besides the Liquid Glue system, SM-210-SA can install hot air bonding technology or the patented Rotosonic (ultrasonic) bonding system. These three technologies can be installed simultaneously (a choice of 2 out of 3) or separately and ensure a versatility that other systems cannot achieve. The SM-210-SA machine installs the patented Intelligent Torque technology - an intelligent interaction between traction wheels and software that keeps the processed fabric under tension at all times during the welding or gluing cycle, resulting in super strong, perfectly straight and flat hot air, Liquid Glue or Rotosonic welding seams on a broad range of very different materials. The SM-210-SA achieves unimaginable results on materials that would normally be difficult to use. *With Intelligent Torque technology, the SM-210-SA is the absolute champion for the production of tensile structure, shade sail, tarpaulins, and PVC covers, and the production of quality awnings, blinds and curtains.*

INSTALLABLE WELDING TECHNIQUES (2 TECHNIQUES INSTALLABLE SIMULTANEOUSLY):

● HOT AIR WELDING HEAD

The hot air welding technology is used to bond thermoplastics and coated fabrics such as PVC, PPL (polypropylene), PU (polyurethane), PE (polyethylene), screen (PVC coated fiber glass), see-through (crystal) PVC, and Soltis.

Hot air welding ensures extremely high quality bonding both in terms of strength, precision and aesthetics. As opposed to other technologies such as high frequency (HF) bonding, hot air welding does not produce any heat stress on the material, because it only affects those sides of the material that are welded together. This means that the outer part of the fabric is not affected by the heat in any way, and the natural physical properties remain intact, thus reducing "puckering" and unattractive marks. According to the production requirements of the customer, S.M.R.E. manufactures customized guides and rollers, to ensure quality welding of overlap seams and lateral hems or pockets, with or without automatic insertion of a reinforcing tube.

Hot air welding also gives excellent results, both aesthetically and in strength, when used for welding (glue coated) zippers to fabric. S.M.R.E. has successfully tested welding of glue coated zippers to acrylic, PVC, screen, insect screen, polyester. Glue coated zippers can be welded to almost all technical fabrics used for awnings and blinds. The patented "Intelligent Torque" technology - an intelligent interaction between traction wheels and software that keeps the processed fabric under tension at all times during the welding cycle - guarantees superb welding quality - super strong, perfectly straight and flat welding seams - on a broad range of very different materials.

● LIQUID GLUE - TECHNOLOGY: HOT MELT BONDING WITH SPECIAL GLUE FOR TECHNICAL FABRICS

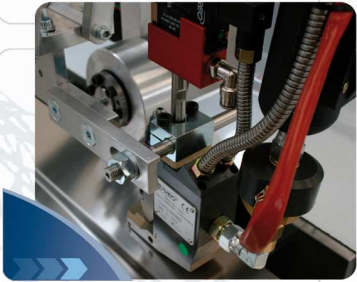
Liquid Glue technology is used in place of conventional sewing with needle and thread. Liquid Glue bonding guarantees incomparable strength, durability and aesthetical results when used on technical textiles like (non coated) acrylic and polyester. Liquid Glue-technology ensures greater hold in time than traditional stitched seams: tests performed on fabrics bonded with Liquid Glue technology clearly show that, after years of exposure to the elements, seams made with S.M.R.E. Liquid Glue technology maintain their physical properties intact while conventional stitching, even if performed with special threads, lose more than 60% of their hold. Besides the significant aesthetical improvement, the Liquid Glue bonding process makes sure the non coated acrylic and polyester fabrics are not punctured by the sewing needles, thus guaranteeing a waterproof bonding. According to the production requirements of the customer, S.M.R.E. manufactures customized guides and rollers, to ensure high quality welding of overlap seams and lateral hems or pockets, with or without automatic insertion of a reinforcing tube. The patented "Intelligent Torque" technology - an intelligent interaction between traction wheels and software that keeps the processed fabric under tension at all times during the welding cycle - guarantees superb gluing quality - super strong, perfectly straight and flat gluing seams - on a broad range of very different materials. S.M.R.E. was the first manufacturer in the world to develop a system for gluing textiles for outdoor use. Today, our customers have welded more than 14,000,000 meters of fabric and S.M.R.E. Liquid Glue is the undisputed champion in the glue bonding of technical fabrics.

● WELDING HEAD WITH ROTOSONIC TECHNOLOGY

Rotosonic (ultrasonic) welding is used for heat sensitive materials and is ideal for the bonding of non-woven textiles and high performance technical fabrics. Rotosonic technology does not need any additional heating element or glue to bond materials, since the traction wheels that pull the material are themselves the ultrasound inducing elements that generate the heat producing vibrations that cause the fabric to bond.

According to the production requirements of the end customer, S.M.R.E. manufactures customized guides and rollers to ensure high quality welding of overlap seams and lateral hems or pockets, with or without automatic insertion of a reinforcing tube.

The patented "Intelligent Torque" technology - an intelligent interaction between traction wheels and software that keeps the processed fabric under tension at all times during the welding cycle - guarantees superb welding quality - super strong, perfectly straight and flat welding seams - on a broad range of different materials.



ADVANTAGES:

- Simultaneous installation of 2 different welding / bonding technologies
- Easy to use
- One-man operated
- Simple, basic structure, no unnecessary gadgets
- User-friendly touch screen display can call up and save 99 programs for different materials
- High reliability
- High quality/price ratio
- High processing speed significantly reduces work times
- Thanks to the mobile head technology, the machine takes up relatively little space
- An automated system puts in place the right guide for the job
- Structure made entirely of anodized aluminum with AISI 304 stainless steel for the parts in contact with the material
- Superb flat and clean bonding seams thanks to the patented Intelligent Torque system
- Bonds extruded plastic profiles onto PVC
- Bonds zippers to technical fabrics with great speed and precision
- Can work large pieces of fabric up to a max. length of 20.000 mm
- Glue seams that last significantly longer than conventionally stitched seams
- Superb bonding performance on transparent materials such as crystal PVC
- High quality commercial electronics with worldwide warranty

THIS MACHINE CAN:

- Weld or glue lateral hems
- Weld or glue overlaps
- Weld side pockets with automatic insertion of plastic tube
- Weld reinforcing ribs
- Weld zippers onto the side of the fabric

APPLICATIONS:

- Welding or gluing of awnings and blinds
- Welding or gluing high-tech curtains
- Welding PVC crystal covers
- Welding PVC gazebos
- Welding tension structures, shade sails, tarpaulins, PVC covers
- Welding plastic profiles onto fabric

THE MACHINE HAS A MODULAR STRUCTURE. THE BASIC TABLE HAS A WORKING LENGTH OF 6 METERS.

Extension modules of 2 meters length are available.

INSTALLABLE TOOLS AND ACCESSORIES:

- Standard and customized fabric guides and rollers for welding and/or gluing
- Kit for welding of omega profiles for arbors
- Kit for zipper welding
- Exhaust system (channel and hood) for aspiration of welding fumes (6000 mm usable length)

INSTALLABLE SOFTWARE:

- SM-210-SA software for hot air, ultrasonic welding or Liquid Glue bonding