Machines and systems for the fabrication of solar protection products
Plant for awning fabrication

Jentschmann AG manufactures customized plants for the awning fabrication from single machines to an entire production plant.

1. **Screen Cut™ + Paternoster Storage**
   - Computer controlled cutting machine to cut fabric rolls up to 300 cm width including horizontal paternoster storage with automatic roll change according to the orders from the ERP system.
   - (For more information, please see the product description on page 8-9)

2. **Fabric Rail System**
   - Transport conveyor system for cut materials with transport bags for up to 8 awning covers.

3. **Sewsy™**
   - Semi-Automatic sewing plant for hemming and seaming awning covers.
   - (For more information, please see the product description on page 10)

4. **Kesa™**
   - Semi-automatic sewing system for efficient and accurate sewing of top and bottom PVC hems on awning fabrics.
   - (For more information, please see the product description on page 11)

5. **Weldsonic™ Twin**
   - Ultrasonic welding machine for bonding thermoplastic coated membranes and gluing Acrylic / Polyester woven fabrics with heat activated adhesives.
   - (For more information, please see the product description on page 8-7)

6. **Punchy™**
   - Computer controlled machine to cut valance shapes on awnings and window shades.
   - (For more information, please see the product description on page 12-13)

7. **Quick Zack™**
   - Special sewing machine to attach bindings to awning valances.
   - (For more information, please see the product description on page 12-13)

8. **Automatic Fabric to Roller Tube Feeder**
   - Roller tubes are automatically taken out order-related of their storage place and brought to the Kesa™ processing station. Once the first PVC hem is attached to the awning cover, the PVC hem is automatically fed into the grooved roller tube and wound up. Then the awning cover is positioned correctly for the second hem. After that the fabric is completely wound up and brought automatically to storage place.
Screen Line

Screen Line is a highly efficient system of machines for the production of Screen and Solis products with very low space requirement and optimal material flow.

The system consists of the following machines:

1. **Paternoster Storage**
   - For fabric rolls of 300 cm width, 25 cm in diameter and max. 75 kg weight
   - 49 fabric rolls, mounted on shafts Ø 48 with swivel bearing
   - Transparent cover of front and back with polycarbonate
   - Selection of fabric rolls via touch panel
   - Electronic system for balance control
   - Space requirements:
     - Height: 460 cm
     - Width: 345 cm + 25 cm for motor mounting
     - Depth: 195 cm

2. **Screen Cut™**
   - Computer-controlled cutting machine for fabric rolls up to 300 cm.

(For more information, please see the product description on page 8-9)

3. **Weldsonic™ Screen**
   - Continuously operating ultrasonic welding machine for the processing of all operations which are necessary for the Screen / Solis production.
Weldsonic™ Twin

Ultrasonic welding machine for bonding thermoplastic coated membranes and gluing Acrylic / Polyester woven fabrics with heat activated adhesives.

The Weldsonic™ Twin is ideal for everyday use with different technical textiles. Typical applications are:

- Manufacturing of Awnings, Umbrellas and Roller Blinds
- Production of Geotextiles, Cover for Swimming Pools and Green Houses, Drainage films
- Fabrication of Large Format Banners, Promotional Textiles, PVC Billboards
- Making of fabrics for Architecture and Construction

The following processes can be performed with the Weldsonic™ Twin:

- Overlap joining of fabrics
- Hemming of material edges
- Pockets for weight elements and PVC ropes
- Bonding of profile keder
- Zip-Keder application
- Welding of reinforcement strips onto awnings
- Seam reinforcement with glass fiber tapes
- Welding of aluminium coated fabrics
- Gluing of impregnated fabrics
**Cumasix™**

Computer controlled cutting machine for awning covers or thermoplastic coated solar protection fabric from roll.

**Characteristics**
- Length and cross cut with ultrasonic to avoid frayed edges
- High productivity since material is slit lengthwise automatically as it is pulled to length
- Precise, automatic positioning of length cutters
- Optional fast, wrinkle free rewinding of the cut material in lengthwise direction, ready for seaming operations without unrolling

**Screen Cut™**

Computer controlled cutting machine for awning covers or thermoplastic coated solar protection fabric from roll.

**Revolutionary Design**
The Screen Cut™ combines highly developed technologies with an unprecedented compact design. Which is only possible by the use of an actively driven guide roller that also acts as an anvil for the ultrasonic cutting units. The required floor space of the machine could be reduced by up to 75% of the previous model.

**Characteristics**
- Length and cross cut with ultrasonic to avoid frayed edges
- Very low space requirements
- High productivity since material is slit lengthwise automatically as it is pulled to length
- Precise, automatic positioning of length cutters
- Automatic and simultaneous winding of each fabric panel
- Easy and fast access to the wound fabric panel
Sewsy™ - Line

Machines from the series Sewsy™ - Line are semi-automatic sewing plants for efficient and accurate joining and side hemming of awning panels.

Characteristics Sewsy™ Eco
- Travelling pneumatic clamps to transport the fabric through the sewing machine
- Simple and easy to operate
- Automatic start and end back-tacks by reading the end of the fabric by a sensor

Characteristics Sewsy™ Top
- Electronically synchronized travelling sewing head with material clamped to work space-saving while providing perfect seams
- Optional re-winder for seamed panels
- State of the art digital control system
- Low space requirements

Kesa™

Kesa™ is a semi-automatic sewing system for efficient and accurate sewing of top and bottom PVC hems on awning fabrics.

Characteristics
- Travelling sewing head with electronic synchronization of sewing and machine travel ensures trouble free sewing
- Integrates Valance strip cut-off and PVC spline sewing operations to reduce material handling
- Spline can be fed into hem from large capacity rolls, with automatic cut-off at end of seam
- Automatic start and end tacks
- Adjustable pneumatic clamps hold material and spline at start of seam
- Automatic end of fabric detection
- Optional re-winder or air table optimizes material handling and space
- State of the art digital control system
- Low space requirements
**Punchy™**

Punchy™ is a computer controlled machine to cut valance shapes on awnings and window shades.

**Characteristics**
- Accurate adjustment of curve to match pattern repeat across entire width
- Curve shape is adjusted to compensate for seam overlap
- Large pre-programmed library of curve shapes
- Automatic detection of the valance beginning
- Automatic insertion of the valance to the start position
- Asymetric patterns are easily handled

**Quick Zack™**

Quick Zack™ is a special sewing machine to attach bindings to awning valances easy.

**Characteristics**
- Adjustable zig-zag width
- Forward and reverse sewing
- Automatic binding feed
- Switchable to straight stitch

**Weldsonic™ Compact**

Weldsonic™ Compact is an ultrasonic welding machine for continuous gluing or welding of thermoplastic coated fabrics.

**Characteristics**
- 10 mm rotary steel sonotrode
- 2 separate drives for sonotrode and anvil roller
- Real time control of preset welding power output during the entire welding process
- Adjustable welding parameter via touchscreen
- Automatic binding feed
Weldsonic™ Longhorn

Weldsonic™ Longhorn is a longarm ultrasonic welding machine for continuous gluing or welding of thermoplastic coated fabrics.

Characteristics
- 7, 11 or 20 mm welding width
- Under arm clearance: 1000 mm
- 2 separate drives for sonotrode and anvil roller
- Real time control of preset welding power output during the entire welding process
- Adjustable welding parameter via touchscreen

Weldsonic™ Zip

Weldsonic™ Zip is a semi-automatic ultrasonic welding machine for easy and fast hemming or attaching zip-keder to Screen / Soltis fabrics.

Characteristics
- Easy and fast fabric preparation by using a pneumatic clamp over the entire width
- Automatic travelling of the fabric carriage synchronized with the welding speed
- Automatic feeding of zip-keders
- A sensor reads the end of the fabric and initiates the cut for the zip-keder automatically
- Material specific welding parameters can be saved to the control

Texband™

Texband™ is an automatic machine for cutting and folding lift tapes and loop tapes for venetian blinds and sun blinds.

Characteristics
- Length of the cut are adjustable via touch panel
- The pull-off carriage is driven by a stepper motor and controlled via SPS
- Automatic counter
- Optional cutting and foiling by ultrasonic to seal the edge an avoid fringed edges
- Cutting of loop tapes possible
- Optional data input by bar code reader