The Jakob Müller Group

Müller researches, develops, engineers and manufactures top technology – from individual subsystems to entire system solutions, including program-
ing, warping, weaving, knitting, dyeing, finishing and making-up of narrow fabrics, webbings, labels and knitted goods.

Application areas
- Clothing
- Underwear
- Sports/leisure wear
- Footwear
- Furniture/household textiles
- Medicine
- Transport
- Conveyors and drives
- Electronics
- Building electronics
- Field technology

Continuous Dyeing and Finishing Line

Narrow fabric weaving and make-up
- Complete machine range for all narrow fabrics
- Complete machine range for warp patterning with dobby or jacquard shedding
- All-embracing system solutions:
  - warping
  - pattern creation
  - narrow-fabric weaving
  - dyeing and finishing
  - photo-optics quality inspection
  - winding, spooling, rolling and layering narrow fabrics
  - Making-up narrow technical textiles

Narrow fabric warp knitting with weft insertion
- Complete machine range for:
  - knitted goods from very simple to extremely complex designs
  - virtually unlimited repeat lengths
  - Patterning versatility and unexcelled flexibility
  - proven Müller compound needle
  - technology for runproof products
  - Top output capacities:
    - greater knitting width
    - top running speeds

Label weaving
- Complete system solutions developed specially for label production:
  - pattern creation
  - label sampling
  - label weaving
  - label cutting and folding
  - Systems for labels with woven or cut edges
  - Machines with highest speeds and minimum space requirement (needle, rapier and air technology)
  - Product range to satisfy all qualitative and quantitative requirements

Your benefits as Müller customer
- Technology from one source where the emphasis has been on nothing else than narrow fabric manufacturing equipment for more than 110 years.
- Collaboration with a supplier employing over 1000 people exclusively in the production of tape and narrow fabric machinery.
- System solutions for your entire production – all from one source, one partner.
- Machines of robust, compact design, engineered to embody the latest technological advances.
- Low-maintenance systems with long life and good resale value.
- Worldwide sales and service network with more than 70 bases. We are always close to you.
- The Jakob Müller Institute of Narrow Fabrics is a centre for basic and advanced training, disseminating sound know-how on Müller products, as well as the design and production of textile products and industrial management.
Field of Application
- Continuous dyeing and finishing of elastic and non-elastic ribbons
- Small to large production quantities
- Ribbons made of polyamide (nylon), polyester, cotton, viscose, rayon or acetate
- Light to medium ribbons

Machine Types
- MFR 3 (roller width 300 mm)
- MFR 4 (roller width 400 mm)
- MFR 6 (roller width 600 mm)

Depending on the material, the three machines mentioned above can be divided into:
- S-models for ribbons made of polyamide, cotton
- C-models for ribbons made of polyester, polyamide, cotton
- T-models for ribbons made of polyester

The machines distinguish only regarding the production capacity which is determined by the roller width and the ribbon content in the steamer. Detailed information about the machine types is given in the technical data.

MFR T (standard configuration for pigment dyeing /finishing using a chamber)

Characteristics
- Energy-saving way of operation by an efficient hot-air dryer and flexible energy supply (gas, external steam, electrical)
- The modular machine construction principle allows the efficient integration of customer-specific requirements
- High quality of the construction and the machine components

According to the desired process following configuration is recommended

<table>
<thead>
<tr>
<th>Material / Substrate</th>
<th>PES / PA / CO</th>
<th>PA / CO</th>
<th>PES</th>
<th>PES (Satin)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ribbon type / Characteristic</td>
<td>non-elastic / elastic</td>
<td>non-elastic / elastic</td>
<td>non-elastic</td>
<td>non-elastic</td>
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<table>
<thead>
<tr>
<th>Machine Configuration Recommended Range</th>
<th>MFR C</th>
<th>MFR S</th>
<th>MFR T</th>
<th>MFR 10C</th>
</tr>
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<tbody>
<tr>
<td>Feed-in-Unit</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Pre-Wash Tanks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steam Tank</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dye Pad</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Infra Red Unit</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Steamer</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Thermosol</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Combi</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>10 Cylinder</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Wash Tanks</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Drying</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Finish Pad</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Infra Red Unit</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Drying Unit</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Take Off</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>

MFR 10C (standard configuration for pigment dyeing /finishing using a 10 cylinder stack)
Field of Application
- Continuous dyeing and finishing of elastic and non-elastic ribbons
- Small to large production quantities
- Ribbons made of polyamide (nylon), polyester, cotton, viscose, rayon or acetate
- Light to medium ribbons

Machine Types
- MFR 3 (roller width 300 mm)
- MFR 4 (roller width 400 mm)
- MFR 6 (roller width 600 mm)

Depending on the material, the three machines mentioned above can be divided into:
- S-models for ribbons made of polyamide, cotton
- C-models for ribbons made of polyester, polyamide, cotton
- T-models for ribbons made of polyester

The machines distinguish only regarding the production capacity which is determined by the roller width and the ribbon content in the steamer. Detailed information about the machine types is given in the technical data.

Characteristics
- Energy-saving way of operation by an efficient hot-air dryer and flexible energy supply (gas, external steam, electrical)
- The modular machine construction principle allows the efficient integration of customer-specific requirements
- High quality of the construction and the machine components

According to the desired process following configuration is recommended

<table>
<thead>
<tr>
<th>MFR Type</th>
<th>MFR C</th>
<th>MFR S</th>
<th>MFR T</th>
<th>MFR 10C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pigment Dyeing</td>
<td>X</td>
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<td></td>
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<tr>
<td>Finishing</td>
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<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Thermosol</td>
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<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pad Steam</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Material / Substrate
- PES / PA / CO
- PA / CO
- PES
- PES (Satin)

Ribbon type / Characteristic
- non-elastic / non-elastic
- non-elastic

Machine Configuration

<table>
<thead>
<tr>
<th>Material / Substrate</th>
<th>Feed-In-Unit</th>
<th>Pre-Wash Tanks</th>
<th>Dye Pad</th>
<th>Infra Red Unit</th>
<th>Steamer</th>
<th>Thermosol</th>
<th>Combi</th>
<th>10 Cylinder</th>
<th>Wash Tanks</th>
<th>Drying</th>
<th>Finish Pad</th>
<th>Infra Red Unit</th>
<th>Drying Unit</th>
<th>Take Off</th>
</tr>
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<tbody>
<tr>
<td>PES / PA / CO</td>
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<td>O</td>
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<td>O</td>
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<td>Y</td>
<td>N</td>
<td>Y</td>
<td>O</td>
<td>N</td>
<td>O</td>
<td>O</td>
<td>Y</td>
</tr>
<tr>
<td>PA / CO</td>
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<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>Y</td>
<td>N</td>
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<td>O</td>
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<td>O</td>
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<td>Y</td>
</tr>
<tr>
<td>PES</td>
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<td>O</td>
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<td>Y</td>
</tr>
<tr>
<td>PES (Satin)</td>
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<td>O</td>
<td>O</td>
<td>O</td>
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<td>Y</td>
<td>O</td>
<td>N</td>
<td>O</td>
<td>O</td>
<td>Y</td>
</tr>
</tbody>
</table>

Optional
- Required, machine will not operate without
- Not required for this material
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Continuous Dyeing and Finishing Line

MFR

for medium to large production quantities, for elastic and non-elastic light to medium narrow fabrics in polyamide, cotton and polyester

Fascination of Ribbons and Narrow Fabrics Innovation in Machinery

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