Jakob Müller AG – Systems and solutions for narrow fabrics

Founded in Switzerland in 1887, Jakob Müller AG is the world leader in technology for the manufacture of woven and knitted tapes and webbing, woven labels, technical textiles, woven ropes, printed narrow fabrics, dyeing, make-up and winding machinery. The Müller supply programme covers all the needs of the ribbons and narrow fabrics industry from individual yarns up to the finished, made-up product.

Narrow fabric weaving systems

NH53 narrow fabric needle loom offers unlimited repeat lengths.

The NH53 is an electronically controlled needle loom for light- and medium-weight, elastic and non-elastic narrow fabrics with infinite repeat lengths. Shed formation is completed by linear motors mounted directly on the heald shafts. Both the weft and auxiliary thread transports are electronically controlled and infinitely adjustable. This means that, as opposed to conventional needle looms, the machine requires fewer mechanical components and provides a roughly 35% reduction in power consumption, i.e. max. 1 kW.

NH53 – electronically controlled, narrow fabric needle loom for light to medium-weight elastic and non-elastic narrow fabrics with unlimited repeat lengths.

Patterning can take place using a maximum of 16 heald shafts. Other beneficial features of the new NH narrow fabric needle loom include user-friendliness and compact design, as well as an extremely advantageous price-performance ratio.

Warp crochet knitting systems

MDC – flexible, operator-friendly and equipped with direct drives

For a number of years, direct drives have been playing an increasingly important role in Jakob Müller AG narrow fabric loom and knitting machine technology. The new MDC (Müller Direct Crochet) machines are available in three variations:

- The electronically controlled MDC 8/630 with a working width of 630 mm and a maximum of 8 weft bars.

MDC 3/830 (with mechanical or electronic controls) – warp crochet knitting machine with weft insertion for elastic and non-elastic knits.

- The electronically controlled MDC 3/830 E with 3 weft bars, an additional guide bar (longitudinal weft of up to max. 450 mm) and a working width of 830 mm.
- The mechanically controlled MDC 3/830 M with ECO controls for simpler products.

The electronically controlled weft bars offer great pattern flexibility, rapid article changes and freely selectable repeat lengths. In addition, the machines have fewer mechanical parts, which means less wear and tear. Machines speeds can be adjusted to the lapping required by the pattern, thus allowing targeted intervention with regard to product characteristics. Knits are created using the MÜCARD2 CAD pattern design software.

Rope weaving systems

MultiSphere is the new technology for woven ropes

To date, ropes have been manufactured exclusively on braiding machines. However, using MultiSphere technology, ropes, with or without cores, twine and cord, etc. can be woven on the new NC2 M and NG3M narrow fabric needle looms. The machines are designed for a variety of rope diameters and differ from their conventional counterparts with regard to reed, fabric guide and take-off design.

Sheath and core thread insertion takes place via a compensation device, which also supports the formation of a three-dimensional structure. As opposed to standard braiding systems, the new process stands out due to these advantages:

NG3M – narrow fabric needle loom for MultiSphere rope weaves.

- Higher productivity.
- Longer, knot-free items due to the extended yarn lengths available on the bobbins/warp beams as compared to braiding bobbins.
- Far lower production and manufacturing costs.

Textile printing systems

Narrow fabric printing - fast, economic and individual.

As a result of digital printing, the MDP2 MÜPRINT2 from Müller opens up a new range of applications for textile printing, especially in the marketing communications field.

As is the case in paper printing, digital technology has become an attractive method for narrow fabric printing. This is because it offers speed, individuality, photorealism and cost-efficiency even in the case of small batches.

The new MDP2 MÜPRINT2 is designed for the contactless, direct inkjet printing of

Typical applications for narrow fabrics printed on the MDP2 MÜPRINT2.

MDP2 MÜPRINT2 – direct inkjet printing system for narrow fabrics.

MFR 3A – compact, continuous fixation and finishing machine for elastic and non-elastic, light to medium-weight ribbons.

narrow fabrics. The machine operates on a roll-to-roll basis in widths of up to 400 mm, whereby these can accommodate the processing of several narrow fabrics simultaneously with 10 mm spacing and a minimum fabric width of 15 mm. The textiles used must consist of polyester with a mass per unit area up to 500g/m^2 and a material thickness up to 1.5 mm.

Dyeing and finishing systems

Environment-friendly, continuous dyeing with the MFR 3A pigment dyeing machine. The MFR 3A continuous dyeing and finishing machine provides the simultaneous dyeing or finishing of several narrow fabrics across a working width of 30 cm.

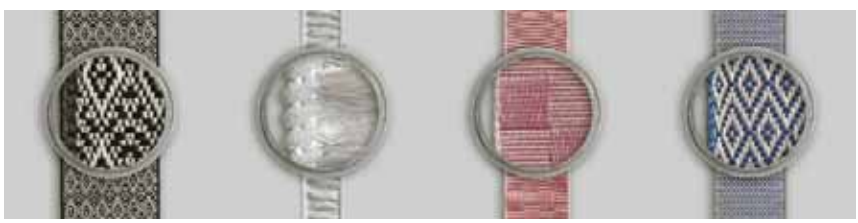
The machine is fitted with an efficient hot air dryer, which ensures absolutely uniform temperature distribution throughout the entire fixing chamber.

Light- to medium-weight, elastic and non-elastic polyamide, cotton, viscose, acetate and polyester narrow fabrics can be processed at a maximum working speed of 30 m/min. The machine is designed for small series and medium-sized batches.

The MFR 3A operates with pigment dyes, a system that offers the outstanding advantages of no wastewater and lower energy consumption. Other benefits include a reduction in cleaning, less waste during machine set-up, the user-friendliness provided by easy access to various machine components, and precise tension control. The energy consumption levels of the MFR 3A are roughly 30% lower than those of conventional dyeing machines.

Product samples processed on MFR3A.

Product samples – ropes, twines an cords woven on NG3M.



Product samples made on NH53.

Exhibits at ITMA ASIA + CITME 2010

- V5M 8/20 – needle loom for elastic and non-elastic tapes.
- V5MJ 384 4/65 – needle loom for elastic and non-elastic Jacquard-patterned tapes.
- CTM8 1/220 – needle loom for belts and heavy tapes with the same edges on both sides.
- NG3M 6/D4 – narrow fabric needle loom for MultiSphere rope weaves with diameters from 1- 4mm.
- RD3.8 8/630 TU – crochet knitting machine with weft insertion for elastic and non-elastic articles.
- MDC 3/830 PN – electronically controlled, warp crochet knitting machine with weft insertion for elastic and non-elastic knits.
- MÜGRIP MBJ3.8 1152 – label weaving loom for the production of labels, pictures and badges with slit selvedges.
- MVC2.8 9/57 – Jacquard loom for labels with woven selvedges
- MÜSONIC1.8 – ultrasonic label slitting machine.
- MDP2 MÜPRINT2 – direct inkjet printing system for narrow fabrics.
- MFR 3A 50 – compact, continuous fixation and finishing machine for elastic and non-elastic ribbons.
- VWA303-1 – automatic machine for the winding of elastic and non-elastic bandages, dressings and tricot tubes.
- MÜCAD / MÜCARD2 – systems for pattern creation and the programming of electronically con-trolled Jacquard machines and weft bars.
- MÜCAD DIGICOLOR – software for the conversion of high-resolution images for the digital pixel weaving process.
- MÜCAD MÜNUMBER-MASTER / MÜBARCODE – programming software for labels with individual sequential numbering and/or individual identification.◆