Van De Wiele: Double rapier weaving machines for technical fabrics

Van De Wiele will present double rapier weaving machines for technical fabrics at Techtextil Frankfurt at hall 3.1, booth H27.

The VTR23 for technical fabrics is a double rapier weaving machine inserting simultaneously two fillings. Pile yarns are used to connect the top and bottom fabric. Numerous technical fabrics are woven on the VTR23 i.e. distance weaves, multiple layer weaves, geotextiles, filter fabrics, etc.

Distance fabrics consist of a top and bottom woven fabric bonded together by vertical pile yarns. These pile yarns are woven into the top and bottom fabrics forming an integral sandwich structure.

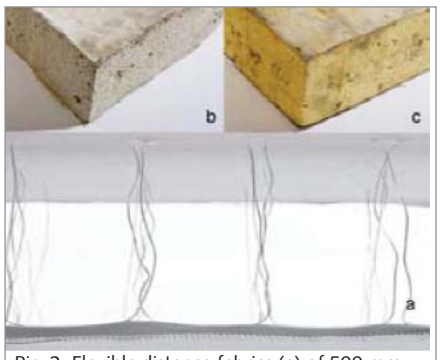
Distance fabrics woven with glass yarns are impregnated with thermoset resin. Due to the capillary forces, the distance fabric rises to the preset pile height. A strong and light sandwich laminate is formed. The excellent mechanical properties of this light sandwich has many applications in the composites industry: light partition walls and hardtops, double wall for storage tanks, light high speed crafts, bus panels and roofing, trucks side skirts, horse trailers, windmill wings. (picture 1)

Pic. 1: Resin impregnated distance fabric woven with glass yarns (a) used to produce light sandwich laminated wind mill wings (b)

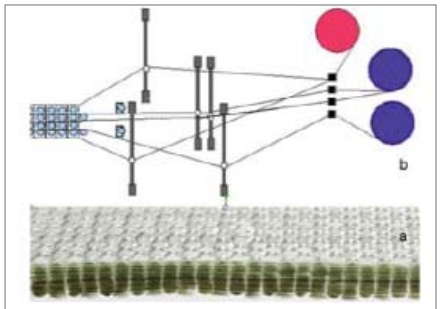
With lancets and false picks, distance fabrics between 15 and 500 mm or even more can be woven. Typical applications for flexible distance fabrics are lifting bags, inflatable boats and shelters, reinforcement of dykes after filling with pebbles and concrete, thermal insulation after filling with polystyrene. (Picture 2)

Multiple layer weaves are also woven at higher production rates as two fillings are inserted simultaneously. (Picture 3). Heavy loaded fabrics i.e. for ballistic protection are woven in multiple layers.

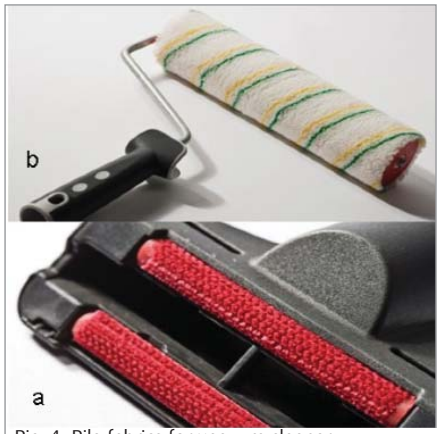
A VTR23 for technical fabrics, equipped with a cutting motion weaves fabrics for painting rollers, fasteners with high binding strength, light lock pile fabric for the photographic industry, vacuum cleaner brushes. (picture 4). For more information on technical fabrics production, the visitors can see professionals from Van de Wiele at hall 3.1, booth H27.◆



Pic. 2: Flexible distance fabrics (a) of 500 mm for dyke reinforcement (b) with concrete filling or for thermal insulation (c) with polystyrene filling.



Pic. 3: Multiple layer fabric (a) woven at high production rate with the double rapier weaving machine VTR23 for technical fabrics (b)



Pic. 4: Pile fabrics for vacuum cleaner brushes (a) and painting rollers (b) woven on VTR23 equipped with a cutting motion

Crealet: Manufacturer of Electronic Warp let-off systems

The successful weaving of technical textiles calls on one hand for know-how and innovation, but often also for a creative warp feeding system. For years already, CREALET has been considered as a strong and reliable partner for customer-specific solutions in this field.

Warp beam frame.

The basis for the most different solutions of problems in this respect consists of various control systems available for the warp let-off and cloth take-up. This makes it possible to CREALET to offer solutions for the entire sector of weaving technical fabrics. These includes:

- Controlled warp let-off and cloth take-up.
- Warp beam support in high position for full-width and twin beams.
- Warp beam frames behind the weaving machine.
- Warp feeding systems for weaving from bobbin creel.
- Controlled selvedge let-off devices.
- Tire cord weaving units.

Thanks to a long experience in design and manufacture of standard and special executions, Crealet is able to offer the appropriate system for every application.

Crealet AG can visted at Techtextil, Hall 3.1, Stand H27 for further information.◆