SANTEX RIMAR GROUP

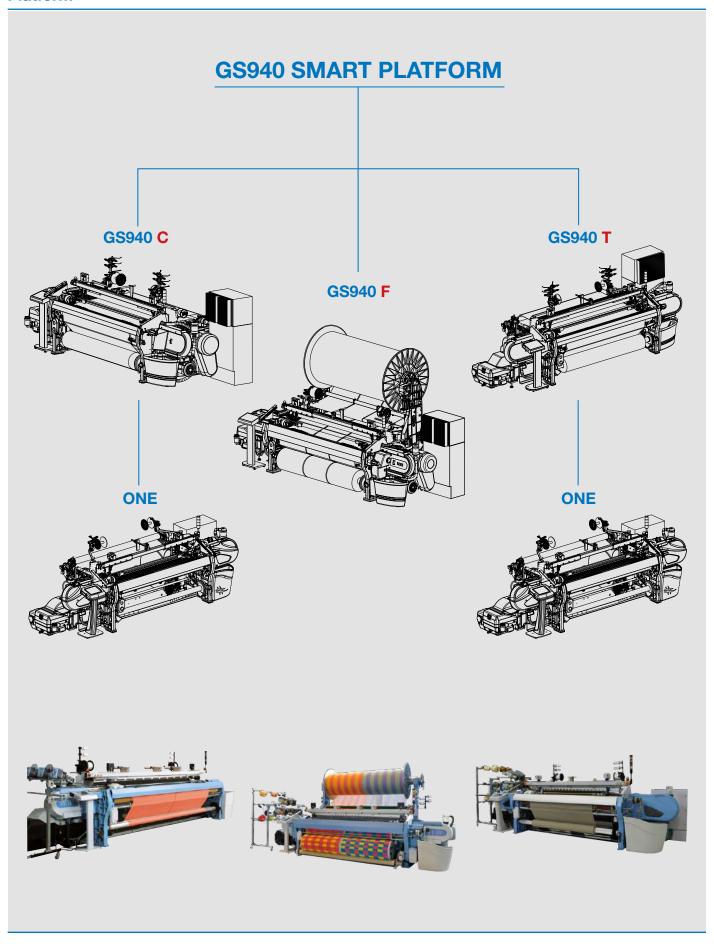
ONE WEAVING MACHINE







Platform



ONE

The GS940 Smart
Platform architecture
provides the most
advantageous weaving
machine configurations
to produce high quality
fabrics for any sector,
widening the weaver's
creativity and the
market access.

ONE, the technical evolution based on the GS series, is renowed for its ease of use and high performances. The weft insertion performed by a single rapier and the numerous improvements in mechanic and electronic groups increase the already high quality standards.

The ONE modularity concept integrates an extensive variety of arrangement options. Thanks to the dynamically controlled flexible tape rapier, that ensures excellent performance in all reed widths range - from 140 up to 220 cm - ONE shows evidence of extreme versatility.

Three different solutions of fancy beam are available, with beam flanges diameter up to 1000 mm.





The adoption of an insertion system based on one rapier only, therefore without weft transfer in the centre of the shed, allows the use of the widest range of yarns, an unparalleled simplicity in the article change and minimum maintenance costs.

A patented system performs the presentation of the weft always in the same position, ensuring an effective and repetitive clamp

- The lack of weft transfer in the middle allows to work with very low weft tensions, thus increasing the insertion efficiency
- The use of a single gripper allows a reduction of the warp shed amplitude, thereby increasing the efficiency
- The lack of the right rapier generator decreases significantly the energy consumption of the weaving machine
- The weft insertion by a single rapier makes consistently easier the adjustments at article change, drastically reducing machines downtimes, allowing the use of yarn types so far not weavable on traditional rapier systems.

The absence of ribbon guide hooks on the carbon fibre punched tape, Free Flight Ribbon System, solution with Smit has been the precursor for more than 20 years, provides the fastest weaving width change, high textile efficiency and top fabric quality even in presence of the most delicate warp fibers.

The sturdy machine structure and the optimized distribution of mechanism masses ensure the greatest stability and the most effective reduction of dynamic load on the floor.

Functionality and ergonomics are the qualities that strike you immediately:

- upper cross beam designed for visibility of the cloth aspect and high accessibility for operator
- push buttons opportunely located that, in combination with control terminal position close to the filling area and independent from machine structure, ensure efficient weaver operation.
- Quick fastening of soundproof guards to ensure high protection and ease of access to the regulating parts
- Reduction of set-up time

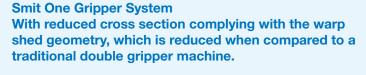
The original gripper tape mechanism transforms the rotary movement of loom shaft into a reciprocating movement by a very rigid and short kinematic chain, without necessity of other mechanisms or bevel gears that would generate energy dissipation and mechanical inaccuracies.

The absence of ribbon guides ensure the most effective reduction of operating costs expressed in:

- Significant reduction of consumed power as ribbons are freely moving inside the warp shed
- Long lasting ribbon, even in presence of high abrasive warp yarns, granted by the friction-free movement
- Very fast working width changes as not ribbon hooks are requested







- Great versatility for every type of yarn and application: fabric for fashion, upholstery, industrial technical and home textiles
- Rapier sliding race-board, cloth or plastic covered, ensures the most extensive efficacy and ease setting, avoiding fitting/ removing of ribbon guide hooks



Electronic Weft Selector

- Electronically controlled point to point presentation by stepper linear motor
- Low weft stress and constant, optimum yarn tension
- Modular and expandable system for 4-8 and 12 colours
- Converging presentation fingers, reduced taking and cutting speed maximum regularity, minimum waste, highest weft performance



Automatic Electronically-controlled Weft Cutter With "self-adapting" regulation of optimal cutting conditions.

- Small variation of weft cutting conditions even with wide yarn range
- Long lasting blade, sharpening Free EWC-A



Lenomat

The electronically-controlled Lenomat units for leno and false selvedge formation allows to program the shed crossing timing from the control terminal, pick by pick, independently for each side of the shedding crossing. Fine tuning can be completed with the machine in operation.

- · Quick adaptation to the most varied types of fabric
- Maximum efficacy in the control of the weft stretching
- set up of the weft waste tail

The new upright position enhances the accessibility, while maintaining all heald frames available for the fabric pattern.







Free from tape hooks it grants:

- Faster working width changes
- Absence of friction between hooks and warp yarns
- Absence of abrasion powder (due to friction between tape and hooks), high quality fabric
- Long tape life time
- Riduction of power consumption



Textile Geometries

The textile geometries of the ONE machine, along with the insertion system with a single rapier, create the ideal conditions for working with warps of any type of yarn.

The precision of the electronic warp let-off and the repeatability of the warp tension parameters, granted by a high precision load cell with encoder feedback, ensure an excellent and stable fabric quality in whatever count and type of yarn.

Single beams with flange diameter 800 mm, 1000 mm, 1100 mm, Euronorm solutions, special solution for 'separate' beam with flanges diameter 1600 mm.



RapierDrive

Carried out with a "spherical crankshaft", it is characterized by optimal acceleration and speed profiles, which result in:

- minimum rapier extra-stroke
- minimum weft cutting, transfer and release speed
- minimun weft waste
- high regularity in weft insertion and maximum efficiency



Direct Drive control

- High response permanent magnet brushless motor, the most advanced technology to reach full operating speed at the first pick for top fabric quality
- High power factor, low energy consumption, low heat generation and no auxiliary cooling system required
- High torque drive for both dobby and Jacquard machine versions

Motor flanged on the main machine axis to minimize spur gears with low energy consumption. Direct Drive available on demand.





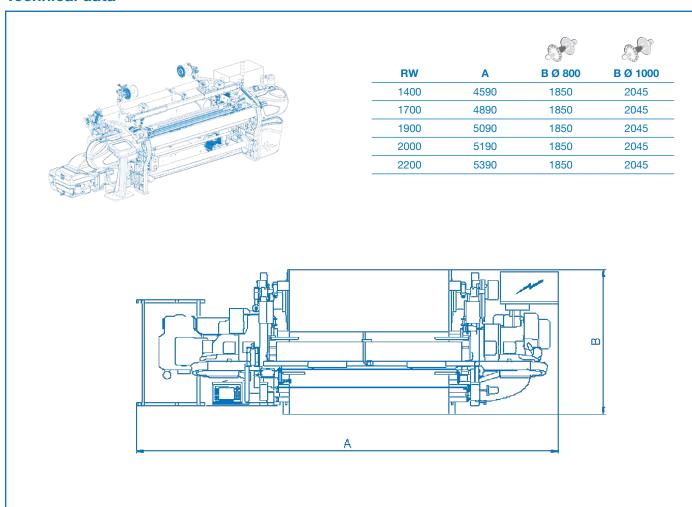
Full Touch Screen

- Colour display 12.1" TFT technology (active-matrix LCD for the best resolution)
- Embedded multitasking system with interactive programming, supervision, assistance applications
- Graphical user interface with intuitive icons and buttons for easy programming
- Data loading/saving with USB penDisk
- Ethernet and wireless LAN connections (as options)
- Data Base management utilities for uploading, downloading, transferring machine set-up parameters and pattern design Programs.

Smart Weave

User-friendly software to create and edit weaving patterns in office PC and lately transfer them into machine Terminal Control for execution. Working on Windows environment.

Technical data





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