



Get the most out of

*weaving*

**GT-*Max***

**PICANOL**  
YOU ARE ALWAYS AHEAD



# GT-Max

Focused on adding value



The GT-Max offers all you need to weave yourself to the top in your market. It uses the proven rapier weaving technology of Picanol's GamMax, with full electronic monitoring and control, Sumo main motor and microprocessor-controlled filling insertion.

Its huge installed base reflects the reliability and robustness of the machine.

This weaving machine has been designed to meet your objective of maximizing return on investment. It guarantees high fabric quality, is best in class for minimum energy consumption, creates space to unleash your talent and optimizes your precious time.

If you really want to get the most out of your market, your material, your energy, your talent and your time, the GT-Max provides the platform for you to stay ahead. Always. Everywhere.

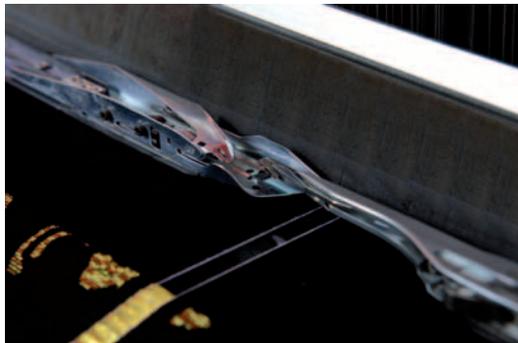
## GUIDED GRIPPER SYSTEM

The light-weight gripper permits high speeds at low yarn tension, reducing the number of filling stops. Its small size results in less friction on the warp yarns.



## FREE FLIGHT SYSTEM

The Free Flight system (FF) is specially designed for weaving delicate fabrics, providing maximum warp friendliness and filling versatility. The covered raceboard is the perfect solution for weaving fine filament warps as found in upholstery fabrics.

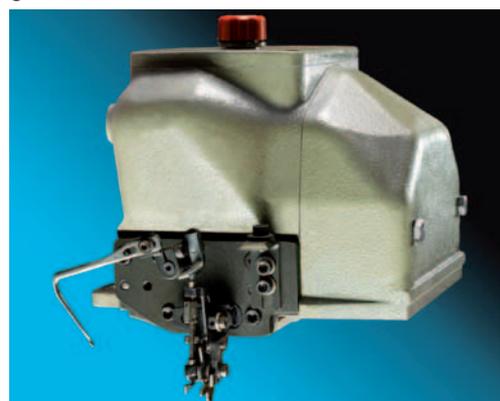


## TOP BEAM

A fancy beam can be mounted on top of the loom in modular fashion. The structure contains a gearbox driven by an SR (switched reluctance) motor and controlled by means of a second warp tension sensor. The tension in both sets of warp yarns is controlled actively by the micro-processor.

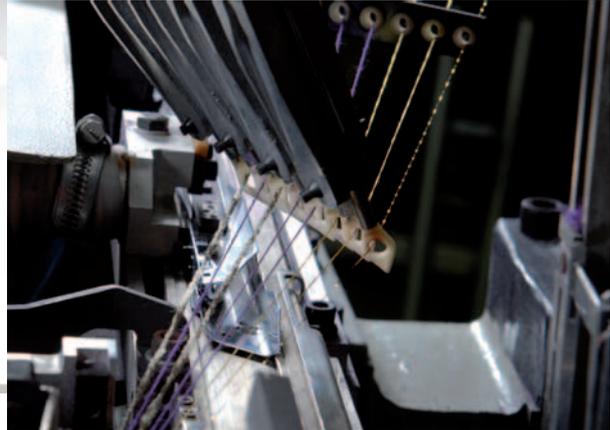
## TUCKERS

The GT-Max can be equipped with a versatile mechanical tucker on both sides of the fabric. Changing from a leno selvedge to tucker or vice versa is easy and quick, with repeatable settings.



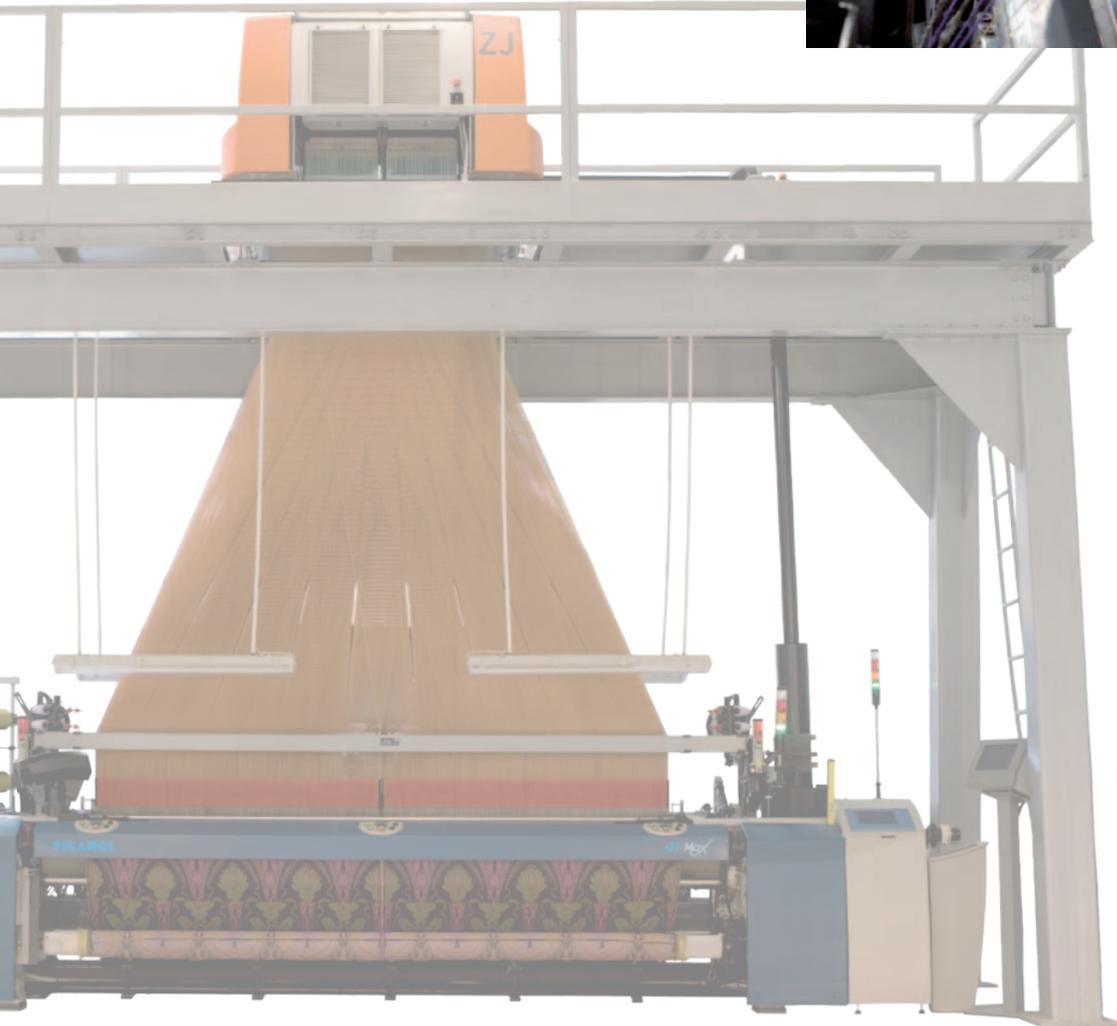
## QUICK STEP FILLING PRESENTER

The weft presenter is fully modular, allowing you to start with e.g. 4-color insertion and to add more channels. The GT-Max is available with up to 12-color insertion. The color and weave pattern are controlled by microprocessor or jacquard. Finally, the Quick Step modules are interchangeable, and there are no mechanical drives, so no maintenance or lubrication is required.



## SHEDDING MOTION

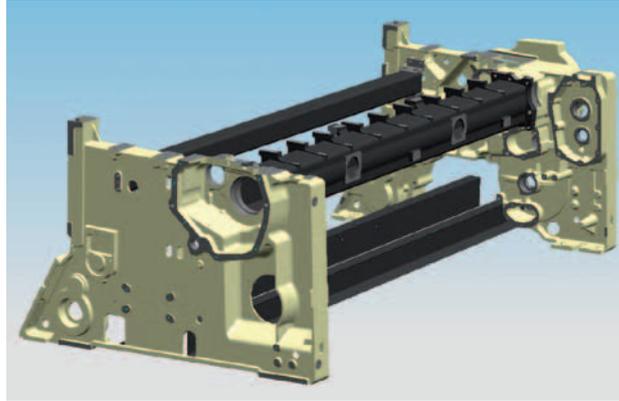
The GT-Max can be equipped with an electronically driven jacquard or an electronic, positive dobby motion with leveling, for up to 20 harness frames.



Get the most out of  
your market

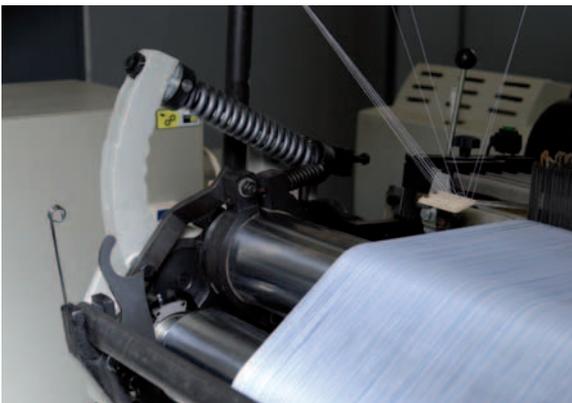
## RIGID CONSTRUCTION

The GT-Max has two cast iron side frames connected by four sturdy cross-members. The conjugated cams are built into the side frames to allow a strong beat-up. The damping capacities of the cast iron eliminate all vibrations, while maintaining long-term stability. The machine rests on its four feet: no anchor bolts are required.



## DOUBLE BACKREST AND TAKE-UP

The standard double backrest and double take-up rollers enable the heaviest styles to be woven with excellent fabric quality. The second roller is modular and can be removed to make the machine ready to weave light styles. Another example of how Picanol makes its looms fit for every market requirement.



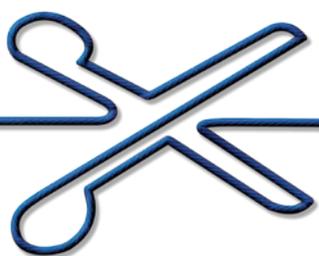
## ELECTRONIC SELVEDGE SYSTEM

The unique Electronic Selvage System (ELSY – patented) full leno selvage motions are electrically driven by individual stepper motors. They are mounted in front of the harnesses, so that all the harnesses remain available for the fabric pattern. The selvage crossing and pattern are programmed on the microprocessor independently of the shed crossing, even while the machine is in operation, so the result of a resetting can be checked immediately.



## ELECTRONIC TAKE-UP AND LET-OFF

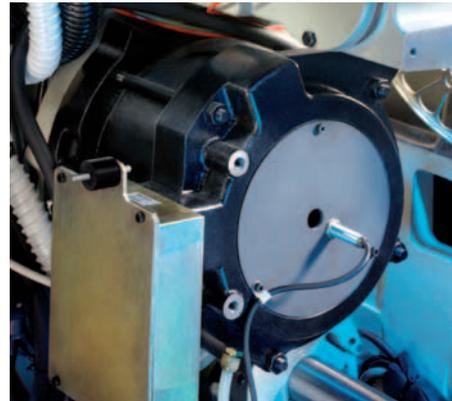
The electronically controlled take-up (ETU) and let-off (ELO) are fitted as standard on the GT-Max. Both are driven by SUMO-type motors which are synchronized by the integrated control box. This arrangement guarantees high quality fabric without marks.



Get the most out of  
your material

## SUMO MAIN MOTOR

The oil-cooled Sumo main motor drives the weaving machine directly, without belt or clutch and brake. The combination of the highly energy-efficient Sumo motor with the direct drive (patented) of the main shaft and shedding motion results in power savings of more than 10% in comparison with conventional clutch and brake configurations. The energy cost for air conditioning is also reduced as the Sumo motor dissipates less heat in the weaving mill.



## SHORT DRIVE TRAIN

The very short drive train is simple and compact, and the machine is up to full speed right from the very first pick.



## PICANOL INTEGRATED CONTROLS

The integrated controls link all features of the loom into one integrated unit. The different loom functions are perfectly synchronized with each other. The new LDEC power board communicates with the take-up and let-off drives through the motherboard. The speed of the motor is controlled electronically, without a frequency converter, thus reducing power consumption while permitting greater flexibility.

## ELECTRONIC TAKE-UP AND LET-OFF

The take-up and let-off are also driven by the highly energy-efficient Sumo-type motors. The forced lubrication in the gearbox keeps the parts cool and reduces the friction tremendously. The advantage is low energy consumption. Excess braking energy in both drives is recuperated in the main drive. This is only possible with Picanol's integrated controls.



Get the most out of  
your energy

## SUMO MAIN MOTOR

With the Sumo motor it is possible to continuously adapt the machine speed pick by pick (Optispeed) to match the strength of the filling yarn. This combination of the Sumo motor with electronic settings makes it easy to obtain the highest possible industrial speeds, taking into account the yarn quality, number of harnesses and weaving pattern. It also considerably reduces the set-up times.



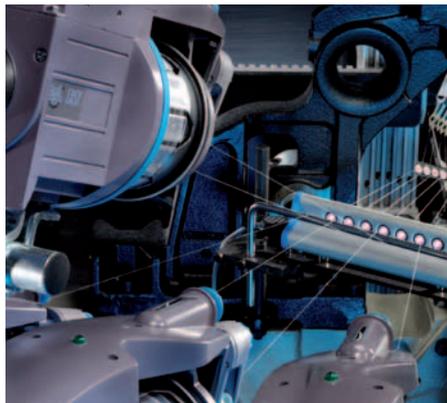
## FAST WIDTH CHANGES

All the components to be moved on the left and on the right are mounted on a single support whose position can be easily varied.



## PREWINDER SWITCH-OFF

The GT-Max has a piezoelectric filling detector that stops the machine in case of a filling break. With its optional Prewinder Switch-Off (PSO) system, the machine carries on weaving even if a filling break occurs on the bobbin creel or one of the prewinders.



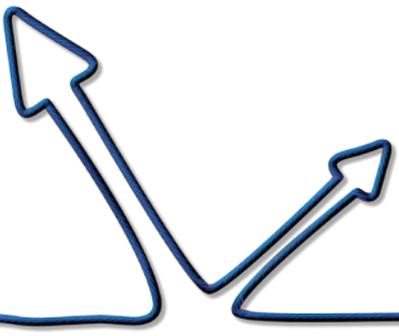
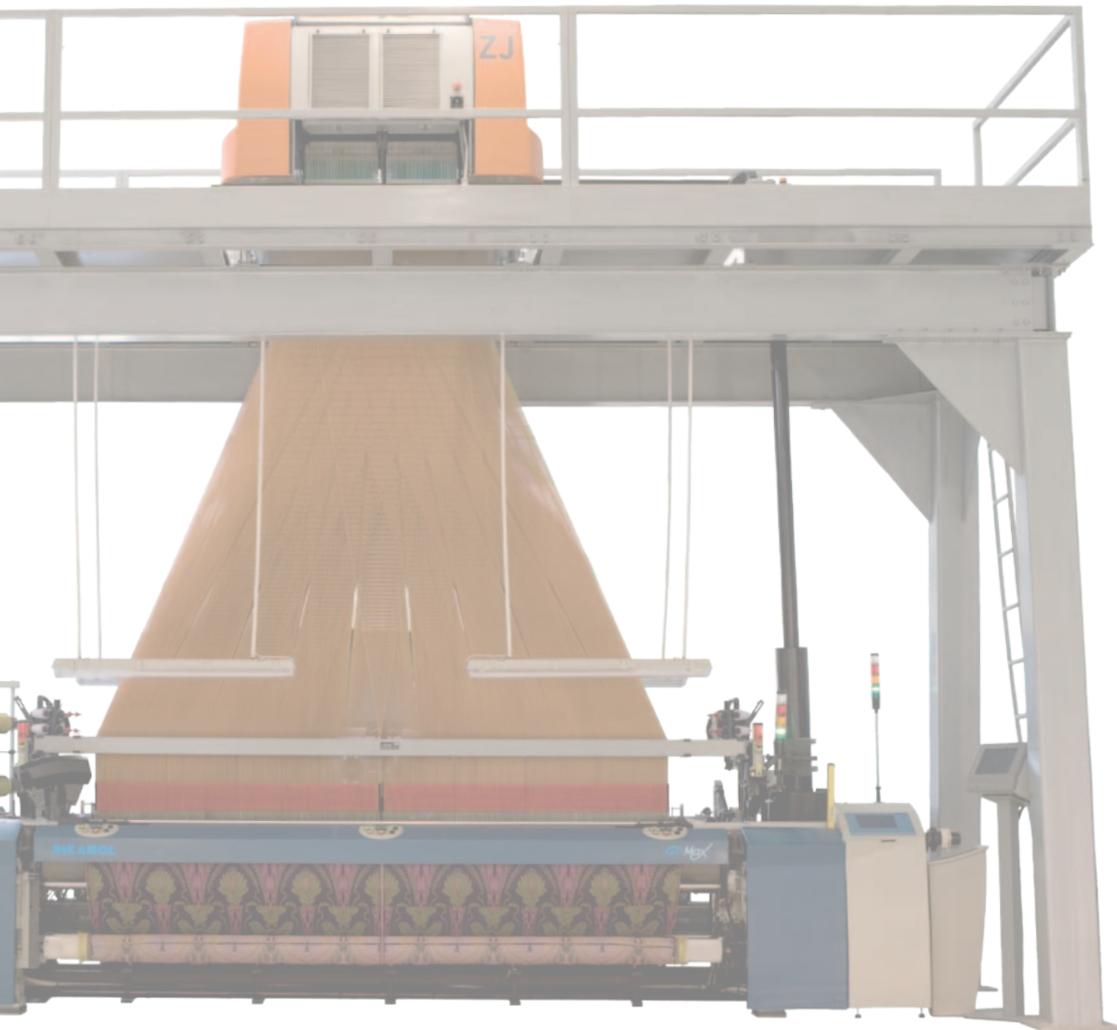
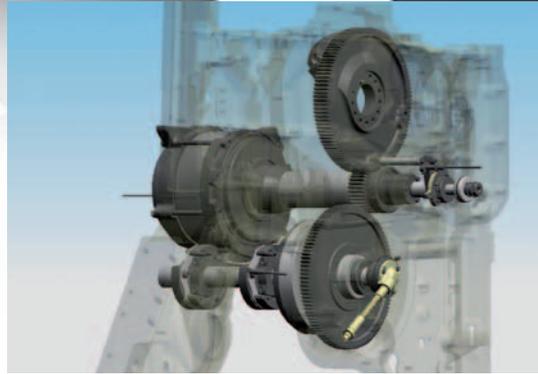
## ELECTRONIC SETTING OF SHED CROSSING

The electronic setting of the closed shed position (AKM) – a unique Picanol feature – allows the weaver to control the aspect and hand of the fabric without even touching the drive train of for instance the dobby.

Pickinder synchronization	
Status Synchronized.	
Shed position	320.0°
PF position	320.0°
Reference zone	: 313.8° → 46.8°
Crossing position	: 313.8°
PSOP	: ■ PSPTP : □
<input type="button" value="restart"/> <input type="button" value="↩"/>	

## AUTOMATIC FULL PICKFINDING

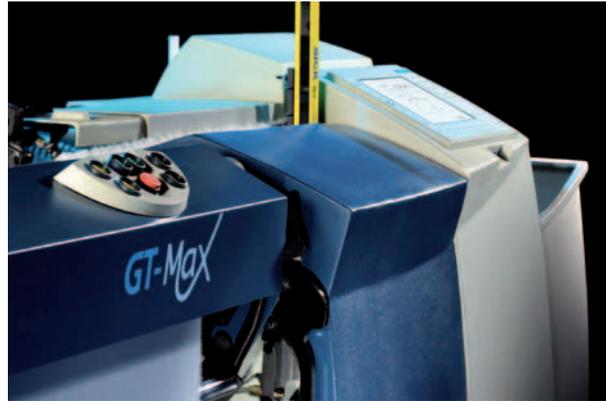
The machine has an automatic full pickfinder driven by the Sumo main motor. In case of a broken pick the machine stops and only the harness frames are brought in motion – automatically – so as to free the broken pick, without the reed touching the beat-up line.



**Get the most out of  
your time**

## ERGONOMIC MACHINE

All Picanol machines are tilted slightly to the front, providing easy access for the weaver. The push-buttons are within reach at all times. The shedding motion stands free on the right hand side and is not obstructed by the package creel and prewinders.



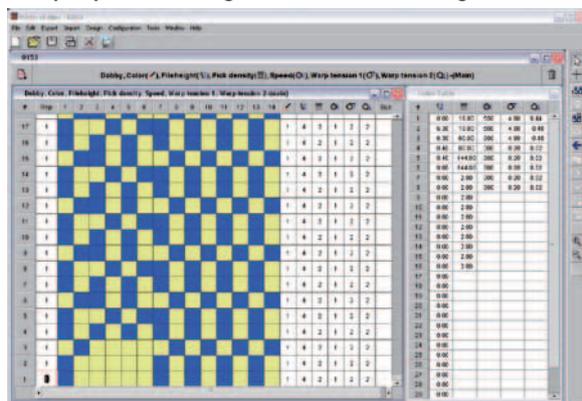
## MAXIMUM CONTROL

All the machine functions are controlled by the microprocessor. Mechanical settings have wherever possible been replaced with electronic ones. The microprocessor records, analyses and stores all the production data. The weaving machine itself can be linked to a central monitoring system by a parallel or serial connection.



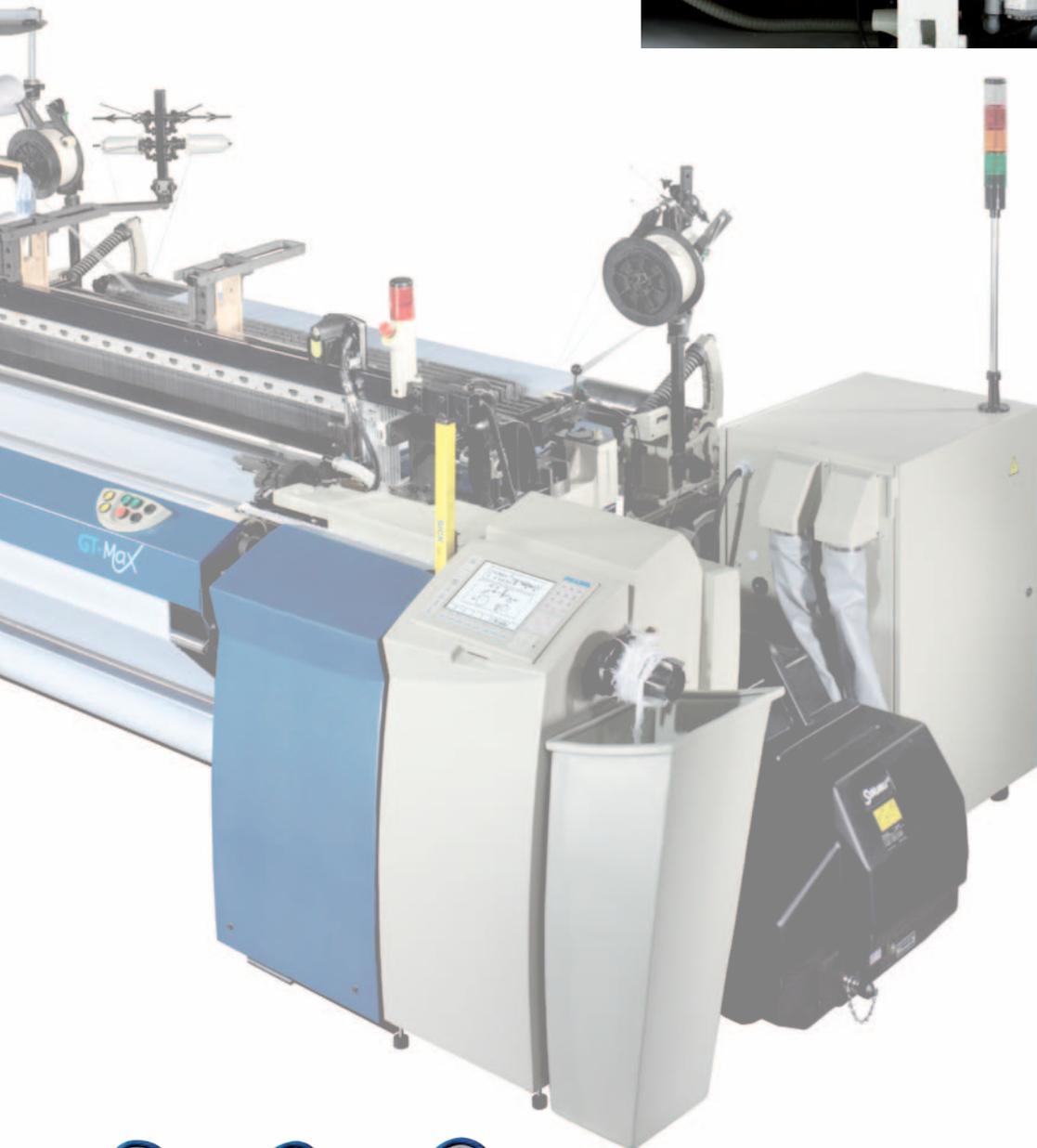
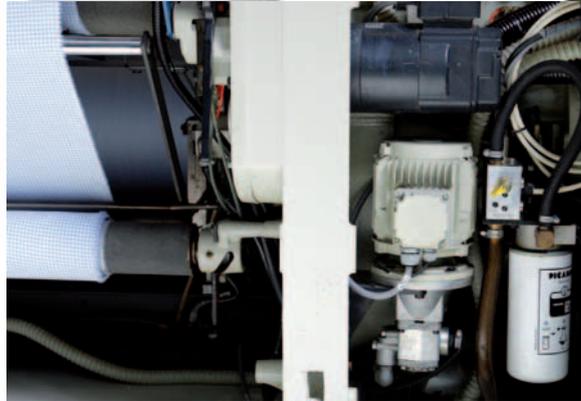
## PICANOL PC SUITE

*Picanol PC Suite* is a collection of PC software applications. *Picanol Pattern Editor* is used to create new designs on the PC, for transfer to the weaving machines. *Picanol Style Administration* is used to prepare settings while the weaving machine is running another style.



## PERFECT LUBRICATION

Lubrication is by means of a central oil circulation system. Constant and adequate filtering of the oil ensures perfect lubrication.



Get the most out of  
**your talent**

# TECHNICAL SPECIFICATIONS

## Standard equipment

### Reed width

190, 220 and 340 cm

### Width reduction

70 cm

### Performance

Filling insertion rates up to 1160 m/min

### Yarn range

Spun yarns: Nm 200 - Nm 3 (Ne 120 - Ne 1.8)  
Filament yarns: 22 den - 3000 den (25 dtex - 3300 dtex)  
Guided gripper or Free Flight version  
Warp yarns: sized, unsized, twisted, non-twisted, intermingled filament

### Filling selection

1 - 12 colors or yarn types (filling presenter with insertion position) **[patented]**

### Filling monitor

Double-pick prevention (anti-two)  
Piezo-electric filling detector

### Reed motion

Positive double-sided conjugated cams in both side frames

### Shedding motion

Electronic rotary dobbie for 20 frames, 12 mm; with leveling  
Electronic jacquard (CAN or serial)  
Electronic setting of the crossing moment (AKM)

### Let-off motion

Load-cell electronically controlled warp let-off system (ELO)

### Warp beam diameter

805, 1000 mm

### Backrest

Single or double backrest roller

### Selvedge formation

Independently electronically controlled (ELSY) **[patented]**

### Warp stop motion

6 bar electrical 30 mm pitch  
8 bar electrical 16 mm pitch

### Cloth take-up

Double pressure roller  
Electronically controlled take-up system (ETU)  
Diameter of cloth roll: 580 mm

### Machine drive

Sumo main motor with direct machine drive **[patented]**

### Pickfinding

Automatic pickfinding and closed shed positioning **[patented]**

### Machine controls

LCD screen  
Push buttons on front panel

### Lubrication

By forced circulation of filtered oil  
Grouped grease points for manual lubrication

### Monitoring

Self-diagnosis  
Stop distribution reporting

### Safety

Light curtain (depending on country of delivery)  
Protection guard over take-up rollers

### Regulations

In designing the GT-Max, Picanol has taken into account international regulations concerning safety (mechanical and electric) and the environment (ergonomics, noise, vibrations, and electromagnetic compatibility).

### Dimensions of the GT-Max

4659 x 2031 mm

### How to read the name

GT-Max-4-R 190  
Number of filling colors: 1 - 12  
Shed formation:  
R: positive dobbie  
Reed width: 190 cm  
FF: Free Flight version mainly for filament yarns  
GOH: Guided Gripper version mainly for spun yarns

## Optional equipment

### Filling Insertion

PSO Prewinder Switch-Off

### Cloth take-up

PBM Batching motion system for diameters up to 1500 mm

### Selvedge formation

Tucked selvedges  
Hot wire cutter

### Warp beam

Second fantasy warp beam on top of the machine

### Control

Parallel or serial connection  
Picanol PC Suite  
Multispeed  
Optispeed



Picanol nv  
Steverlyncklaan 15  
BE-8900 Ieper  
Belgium  
Tel. +32 57 222 111  
Fax +32 57 222 001  
[www.picanol.be](http://www.picanol.be)  
[info@picanol.be](mailto:info@picanol.be)

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