

GTMax-i 3.0S



Find out more about
our products & features
on **our website**

www.picanol.be



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TO GO TO
OUR WEBSITE

His **eagerness to grow** is our benchmark.



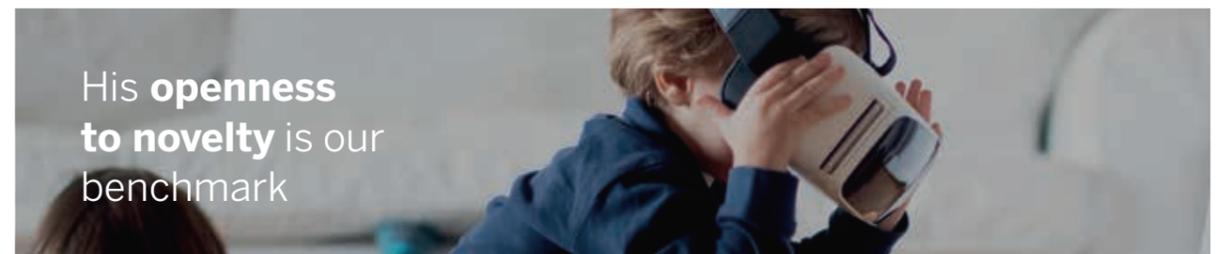
Discover our vision in a video by scanning this QR code

PICANOL 
Let's grow together

The future. Should we be afraid of it?

At Picanol we believe our children already show us what the future brings. Their expectations are **our new benchmarks.**

His **openness to novelty** is our benchmark



Their **care for the planet** is our benchmark



Her **lack of patience** is our benchmark



Her **ease with technology** is our benchmark



Their today is our tomorrow.

Because more than ever, in the future, we don't just want to grow. We want to **grow together.**

Our design principles: how we build our machines.

When starting the design of a new machine, we have to do better than just a few picks faster than the previous generation. Today's world is all about connectivity, user-centric design, intuitive controls, self-learning capacities and sustainability ... to name just a few.

These are the benchmarks for a future-proof design.



Smart Performance

Performance is the first requirement for any machine or feature, and the obvious indicator is the **theoretical maximum speed**. Very often, however, the gap between this theoretical speed and **the effective speed** under real-life conditions is huge.



Sustainability Inside

When it comes to **preventing waste** and **reducing energy consumption**, Picanol has long faced up to its responsibility. Our machines are designed with a built-in capacity for sustainability.



Driven by Data

We all know that **digitization** will become ever more important in the next decades. **Data** have to be captured and made available for **artificial intelligence**, making production more efficient.



Intuitive Control

Kids nowadays handle new technology **effortlessly and intuitively**. That's what we want for our machines as well. Just like your smartphone or your car, the **machine display** is the interface that controls nearly all the machine functions.

Smart Performance, Sustainability Inside, Driven by Data and **Intuitive Control** are the basic principles of any Picanol weaving machine. They allow your company to thrive in today's world of Industry 4.0: connected, digital and sustainable.

That's why we at Picanol design our machines around the principle of 'Smart Performance': **intelligent machine design** combined with self-setting software, allowing the highest possible practical speed and best performance under all conditions.

We have demonstrated this with our pioneering Sumo drive. Introduced back in 1996, it is still the **most energy-efficient** main drive available. Sustainability is also about **waste management**. We not only reduce waste but also try to avoid it completely. Our EcoFill feature is an excellent example of this.

Ever since the first introduction of electronics on weaving machines in the 1970s, Picanol has been at the **forefront of digitization**. With every new machine, we continue to be a trendsetter in this field and to further deploy Industry 4.0 in the weaving industry: the **self-setting machine** is just around the corner!

Wireless-ready, robust and **designed for instant readability**: new generations will not accept anything less! This **user-centric approach** is also embedded in the design of the overall machine, making all operations easy, intuitive and self-explanatory.

GTMax-i 3.0S

The benchmark in rapier weaving

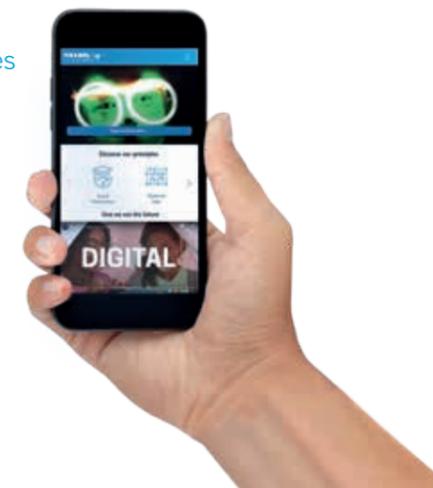
The GTMax-i 3.0S sets the benchmark for weaving yourself to the top of your market. It uses the proven rapier weaving technology, with full electronic monitoring and control, the SUMO main motor, and microprocessor-controlled filling insertion. This weaving machine has been designed to meet the objective of maximizing return on investment.

GTMax-i 3.0S is a continuation of the success of the GTMax-i 3.0 machine platform. The optimization of the gripper movement and the integration of the future-oriented BlueBox electronic platform with CAN communication allow for even higher production speeds.

Together with our customers we constantly strive to improve our machines and services, in order to stay ahead of the competition. The GTMax-i 3.0S provides the perfect platform for you to keep growing. Because that is the essence of weaving.



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Solid structure combined with proven shed geometry, the basis for any application

The proven Picanol concept combines **two solid sideframes** connected by **large-section cross rails**. 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.



Maximum performance

Whether you are looking for **high speed** or **ultimate versatility**, the GTMax-i 3.0 S can be equipped with the **most suitable rapier system**. The platform has been re-designed to enable the fastest rapier weaving machine with the **Guided Gripper version**.

The **Free Flight version** with the raceboard execution ensures the best solution for filament warp yarns, in combination with maximum weft versatility. The Free Flight with carriers has been designed for weaving delicate fabrics with hairy warp yarns, such as fine worsted.



Smart Performance



Gentle treatment of all kinds of yarn

From **detection of the filling yarn** to the unique **QuickStep weft presenter** and the **Mechanical filling cutter**, all are designed throughout to handle the **widest variety of weft yarns** in the smoothest possible way.

The **QuickStep filling presenter** operates with independent modules, each consisting of an electronically controlled stepper motor with presenter needle. The modules are interchangeable and there are no mechanical drives. Therefore, no maintenance or lubrication is required.



Future-proof thanks to modular design

The rapier machines can be fitted with an **electronic, positive dobby** with levelling for up to 20 harness frames, or with an **electronically controlled jacquard**.

The machine is **ready to mount a superstructure**, making it possible to add e.g. a name-selvedge jacquard or an additional top-mounted warp beam with separate let-off motion. The tension in both sets of warp yarns is controlled individually by the microprocessor.

Shortest drive train

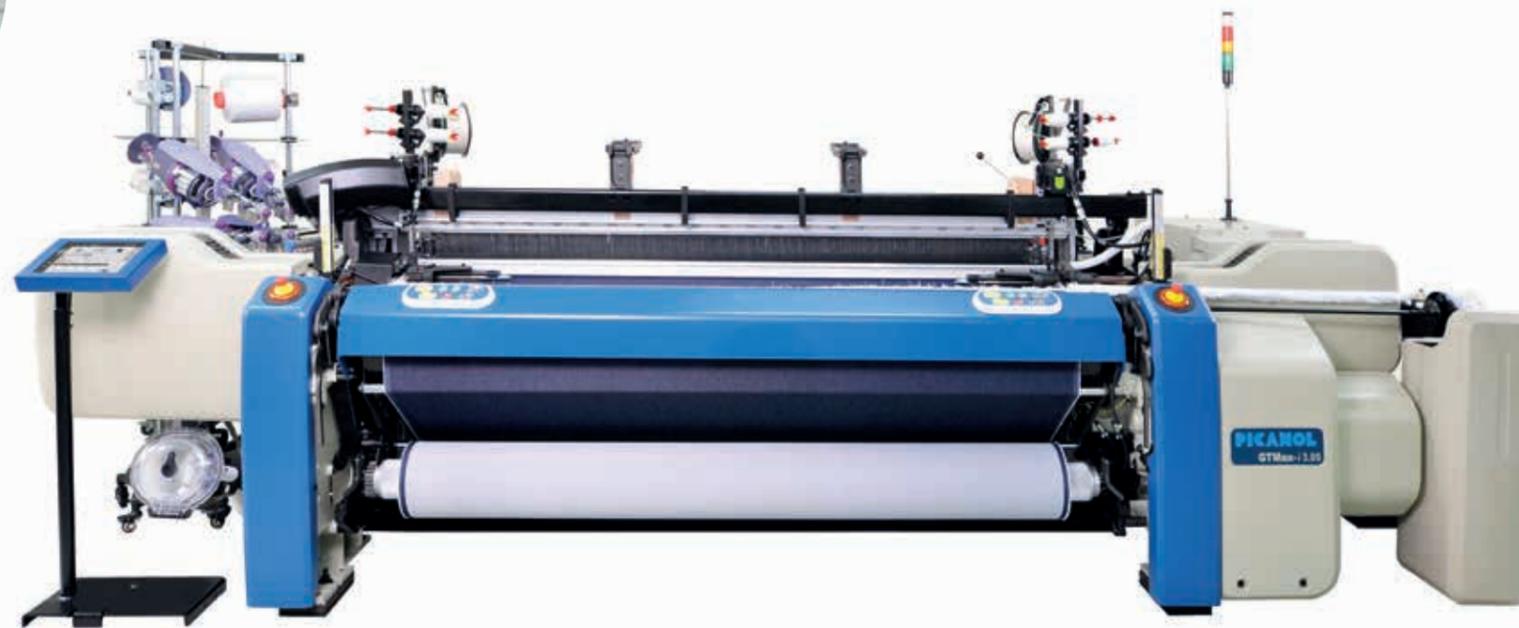
Picanol offers the **most energy-efficient machine** thanks to the **SUMO main motor** and the **shortest drive train**. The very short drive train is simple and compact, and the machine reaches **full speed right from the very first pick**. With only 4 gears, the main motor drives the sley drive, the rapier drives, and the shedding motion. This is the best guarantee for ensuring the lowest energy losses.



Still the most energy-efficient main drive available

The **SUMO** concept pioneered by Picanol is still the **most energy-efficient main drive** available. The oil-cooled SUMO main motor drives the weaving machine directly without the need for a belt or a clutch and brake.

Designed as an integrated system, it affords the lowest possible energy consumption while at the same time offering many other advantages such as **full-range speed control, slow motion, pick finding**, and even **automatic crossing setting**.



**Sustainability
Inside**

Lowest possible energy consumption with the electronic take-up and let-off

The **electronically controlled take-up and let-off** are fitted as standard on the GTMax-i 3.0S. Both are driven by SUMO-type motors, which are synchronized by the integrated control box. The forced lubrication in the gearbox keeps the parts cool and considerably reduces friction. The advantage of this is **low energy consumption**.



Smart energy use thanks to improved lubrication

As well as **filtering and cooling the oil**, the integrated lubrication system brings the **optimum amount of oil** to all crucial points in the machine. This not only **extends the lifetime** of the components but also assures the **lowest possible energy consumption** in all gear transmissions. The **smart oil cooling system** maximizes both machine performance and sustainability.



The reliable electronic platform, ready for Industry 4.0

Right from the start, the **BlueBox** electronic platform was designed to meet the needs of next-generation weavers. This goes further than **flexibility and reliability**. **Data gathering** and **data access** afford new opportunities to make your production even more efficient.

BlueBox offers optimal microprocessor speeds, increased memory capacity, and a modular circuit board set-up. Network connectivity allows remote monitoring and service.



Data-based remote service

All service-related data in the machine can be made available simply and easily. This **Customer Service File (CSF)** enables Picanol to carry out remote diagnosis and take efficient action.



Connect, centralize and manage machine data

Picanol PC Suite is a collection of PC software applications. **LoomGate** makes it possible to communicate between PC and weaving machines over the network. **Picanol Pattern Editor** is used to create new designs on PC, for transfer to weaving machines. **Picanol Style Administration** is used to prepare settings while the weaving machine is running another style. **Password Administration** makes it possible to define a list of passwords linked to a user, to unlock the display and to change the machine settings.



Driven by
Data

Reduce the impact of bobbin failures

With its **PSO (Prewinder Switch-Off)** system, the machine carries on weaving automatically even if a filling break occurs on the weft bobbin creel or one of the prewinders.



Maximum control

All of the machine functions are controlled by the **microprocessor**. Wherever possible, mechanical settings have been replaced with electronic ones. The microprocessor records, analyzes, and stores all the production data. With the **interactive touchscreen display**, settings of several articles can be stored locally on the display. The weaving machine itself can be linked to a central monitoring system by a parallel or serial ethernet connection.



Enjoy operating the machine

In addition to the **various user-friendly features** that are standard on all Picanol machines, handling the machine is made even easier thanks to a range of innovative design features. The machine is **unusually low at the front**. The pushbuttons with metal dome technology are conveniently located and have optical command confirmation. All main settings can be carried out by one person and are done above the fabric line, providing **perfect accessibility** for weavers and operators. The machines come as standard with quick and **easy locking and unlocking** of the warp beam and the cloth roll.



Full and independent control of the selvages

With the independent, motorized **Electronic Selvage System (ELSY)**, the user can set the weaving pattern and crossing of the selvage on the display, differently for each device and independently of the shed crossing.



The ease of width changes in a minimum of time

All components involved in a width change are **mounted on a single support**, the position of which can be easily varied.



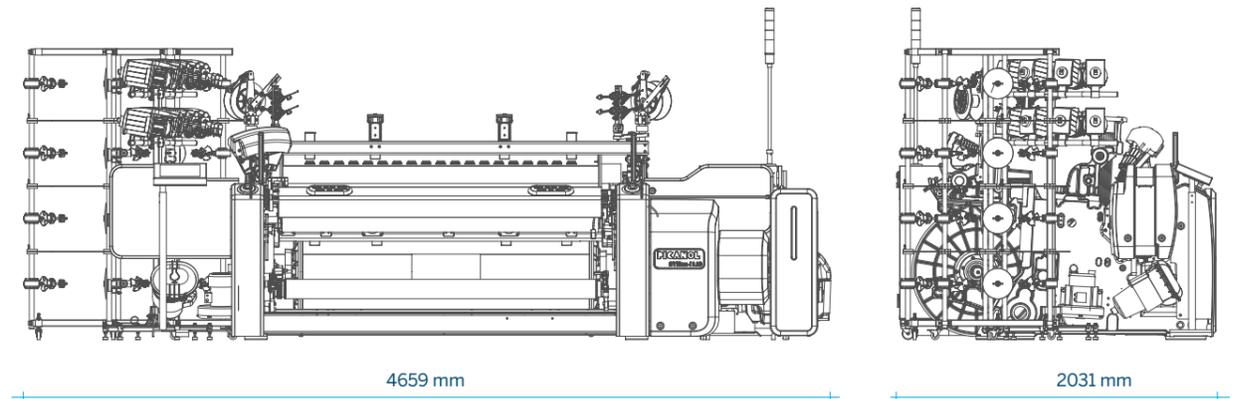
Intuitive Control

GTMax-i 3.0S Technical specifications

Available for the
aftermarket

Fabric specifications		
Useful widths	190, 220, 230, 240, 250 and 340 cm	
Width reduction	60 to 90 cm dependent on reed width	
Performance	Filling insertion rates up to 1530 m/min	
Yarn range	Spun yarns	Nm 200 - Nm 3 (Ne 120 - Ne 1.8)
	Filament yarns	20 den - 3000 den (22 dtex - 3300 dtex)
	Warp yarns	sized, unsized, twisted, non-twisted, intermingled filament
Filling insertion		
Guided gripper or Free Flight version		
Filling selection	1 - 12 colors or yarn types (filling presenter with insertion position)	Standard
	Weaving 2 weft yarns simultaneously	Optional
Prewinder	Prewinder Switch-Off (PSO)	Optional
Filling monitor	Piezo-electric filling detector	Standard
	Piezo-electric filling detector with anti-2 protection	Standard
Warp let-off		
Warp beam	Diameter 805, 1000 mm	Standard
Fancy beam on top	Diameter 805 mm	Optional
Easy warp beam connection		Standard
Backrest	Single or double backrest roller	Standard
Warp stop motion	Electrical 6 electrodes 25-mm pitch or 8 electrodes 16-mm pitch	Standard
Cloth take-up		
Cloth take-up	Double pressure roller	Standard
	Electronically controlled take-up system (ETU)	Standard
	Diameter of cloth roll: 600 mm	Standard
	PBM Batching motion system for diameters up to 1500 mm	Optional
Easy cloth roller connection		Standard
Fabric illumination	LED illumination above reed	Optional
Machine drive and control (BlueBox platform)		
Main motor	SUMO main motor with direct machine drive	Standard
	OptiSpeed	Standard
Automatic full pickfinding and closed shed positioning		Standard
Reed motion	Positive double-sided conjugated cams in both side frames	Standard
Shedding motion	Positive dobby (R) for 20 harness frames, 12 mm pitch with levelling	Standard
	Execution for electronic jacquard (J) (CAN)	Standard
	Electronic setting of the crossing moment (AKM)	Standard
	Harness drive DRC2 for T-190 - T-250	Standard
Let-off motion	Load-cell electronically controlled warp let-off system (ELO)	Standard
Take-up motion	Electronically controlled take-up system (ETU)	Standard
Lubrication	By forced circulation of filtered oil	Standard
	Grouped grease points for manual lubrication	Standard
Machine controls	LCD touch screen with color display	Standard
	Push buttons on front panel	Standard

Selvedge formation	
Independently electronically controlled selvedge system (ELSY)	Standard
Tucked selvedge	Optional
Hotwire cutter	Optional
Monitoring and software tools	
Self-diagnosis	Standard
Stop distribution reporting	Standard
Connection provided for major weaving room monitoring systems	Standard
Ethernet connection	Optional
Picanol PC Suite (Picanol Pattern Editor (PPE), Picanol Style Administration (PSA), Loomgate, Password Administration)	Optional
Safety	
Light curtain (depending on country of delivery)	Optional
Protection guard over take-up rollers	Standard



GTMax-i 3.0S - 4 - R - 190

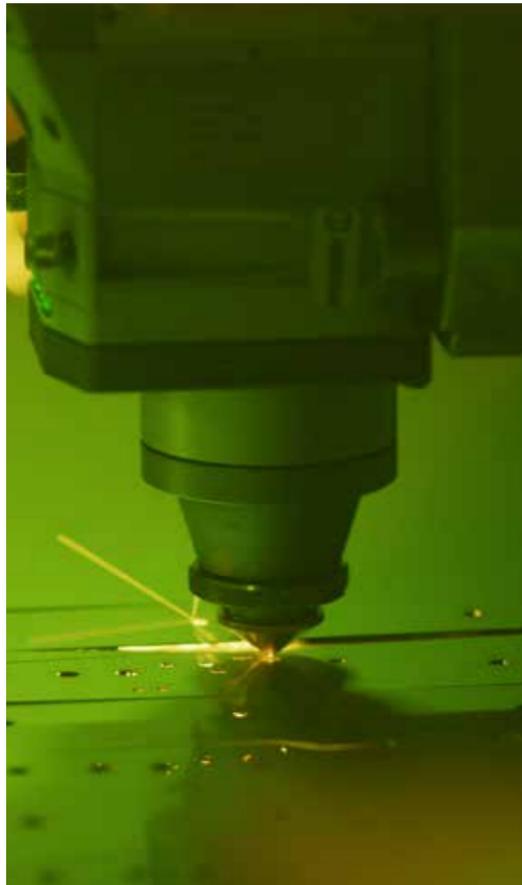
How to read the name

GTMax-i 3.0S- 4 - R - 190 → Reed width
 → Shedding motion
 → Number of filling colors

Regulations

In designing the GTMax-i 3.0S, Picanol has taken into account international regulations concerning safety (mechanical and electric) and the environment (ergonomics, noise, vibrations, and electromagnetic compatibility).

Built in the factory of **the future**



Spare Parts & WeaveUp

Weaving machines are one of your most important investments. Keeping them in optimal condition is essential to safeguard the high value of this asset and to remain competitive as a weaver in a globalizing world.

Use of original Picanol parts guarantees a continued high performance of the Picanol weaving machines.

Moreover, timely replacement of original parts enables Picanol's customers to run their machines in the most economical way.

Regardless of the age of the machine, the use of original parts will keep the machine in top condition which has a positive influence on the value of the machine throughout its life time.

Furthermore, to expand your weaving range and/or increase your machine performance, Picanol offers upgrade packages for installed Picanol machines. WeaveUp upgrades add state-of-the-art technology to your machines, which apart from the benefits in weaving equally increase the value of your investment.

Training is part of the deal Picanol makes with its customers

Well-trained employees are a real asset to your company. Skilled staff make your machines run at optimum performance, producing excellent fabric quality and resulting in superb plant efficiency.

We feel it is our duty to help your employees to improve their skills and knowledge. Hence, in 2015 we decided to invest in a state-of-the-art Technical Training Center in Ypres.

Three fully equipped rooms (each with weaving machines, cut models, mini workshop etc.) cover a total area of 270 m². This new knowledge center allows Picanol to train technicians from customers around the world in optimal conditions.

All facilities are there to give your employees a warm welcome. If your employees are not able to travel to one of our training centers, our instructors come to you and will organize training at your premises.

Curious about our **upcoming news**?

Please check our website www.picanol.be to learn more about our latest news, updates and events.

Book your training course

As already mentioned, training is part of the deal Picanol makes with its customers.

A full list of our training courses can be found on our **website**: www.picanol.be/training-services.

For more information, please contact your local Picanol agent or Customer Service Representative (CSR). See www.picanol.be/agents for contact details.



We make it easier

Our calculators, freshly designed, developed to make weavers' everyday lives easier.

Visit our website www.picanol.be and discover our new integrated weaving calculators online.



About Picanol



The Picanol Group is an international, customer-oriented group specialized in the development, production and sale of weaving machines, cast iron parts and controllers.

Its Weaving Machines division (Picanol) develops, manufactures and sells high-tech weaving machines based on airjet or rapier insertion technology. Picanol supplies weaving machines to weaving mills worldwide and also offers to its customers products and services such as weaving frames and reeds, training, upgrade kits and spare parts. For more than eighty years, Picanol has played a pioneering role in the global industry and is currently one of the world's leading weaving machine manufacturers.



The Industries division covers all the other activities not related to weaving machines. Proferro comprises all foundry activities and the group's machining activities. It produces cast iron parts for compressors and agricultural machinery, and parts for Picanol weaving machines. PsiControl designs, develops, manufactures and supports, among other things, controllers in various industries such as textile machinery, compressors and fleet management.

Melotte is a high-precision producer of metal components, molds and reconditioned molds. It has also played a leading role in the 3D printing of components for a number of years.

Next to the head office in Ypres (Belgium), the Picanol Group has production facilities in Asia and Europe, linked to its own worldwide service and sales network.

The Picanol Group employs more than 2,300 employees worldwide and has been listed on the Euronext Brussels exchange (PIC) since 1966. Since 2013, the Picanol Group has also had a reference interest in the Tessenderlo Group (Euronext: TESB).

Next to Ypres, Picanol has two first-in-class training centers located in Suzhou (China) and Greenville (USA). All our training centers are specialized in technical training on weaving machines for machine operators, fitters and weaving managers.

Our team is always at your disposal for further information or questions.

www.picanol.be



The illustrations and descriptions in this publication do not commit Picanol in any way: specifications may change as a result of developments in engineering and materials. EN 15.05.2021.



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