

# GTMax-i 3.0S Connect



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our products & features  
on **our website**

[www.picanol.be](http://www.picanol.be)



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His eagerness  
to grow is our  
benchmark.




Discover our vision  
in a video  
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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.

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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.

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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.

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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!

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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 Connect

## The benchmark in rapier weaving

If versatile and productive weaving driven by digitization and Industry 4.0 is your objective, you can now be sure of real added value with the unique, future-oriented GTMax-i 3.0S Connect.

The GTMax-i 3.0S Connect is a continuation of the success of the GTMax-i 3.0 machine platform. It uses the proven rapier weaving technology, with full electronic monitoring and control, the redesigned SUMO main motor, and microprocessor-controlled filling insertion. This weaving machine has been designed to meet the objective of maximizing return on investment, with its optimized gripper movement and the future-oriented BlueBox electronic platform with CAN communication.

Our market is nowadays driven by an increasing concern for environmental topics, higher costs, and the lower availability of resources and skills, as well as the digital revolution. That is why the GTMax-i 3.0S Connect has been built around our four leading design principles.

### Smart Performance

Picanol machines have always been built for maximum performance, and they always will be. Smart performance not only focuses on speed but also on **top quality and versatility**.

With the GTMax-i 3.0S Connect, **smart performance** is guaranteed by the robust machine structure combined with the proven shed geometry and the most suitable rapier system for any application.

### Sustainability Inside

Minimizing the energy consumption cannot be an optional extra - it has to be embedded in the machine design. To this end, the Sumo drive concept has become even more **energy-efficient**. In other words, **sustainability is inside**.



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## Driven by Data

Picanol has pioneered the digitization of weaving machines for many decades now. The **BlueBox** is our reliable electronic platform, ready for Industry 4.0. Data gathering and data access afford new opportunities to make your production even more efficient. The data is ready to be used for further optimization of the machine performance or to be exchanged with data available in the cloud. Therefore, weaving with Picanol becomes truly **driven by data**.

## Intuitive Control

Picanol machines are always designed to be as user-friendly as possible. Thanks to its intuitive user interface and the **Smart signal lights, intuitive control** has been incorporated to its maximum extent in the machine design of the GTMax-i 3.0S *Connect*.



## Now enabled by PicConnect

PicConnect is our online platform offering digital services. It serves as a powerful extension of your weaving capabilities. Whatever your reflexes tell you to do, PicConnect amplifies it. We call it intuitive weaving – it's about allowing you to follow your weaving instincts. Learn more at [www.picanol.be/intuitiveweaving](http://www.picanol.be/intuitiveweaving)

## 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** weft 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.



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

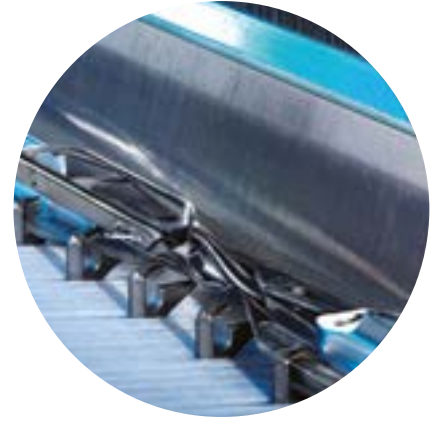
The proven Picanol concept combines **two solid sideframes** connected by **large-section cross rails**. The conjugated cams are built into the side frames to allow a strong beat-up. The damping capacities of the cast iron eliminate all vibrations while maintaining long-term stability. The machine rests on its four feet: no anchor bolts are required.



## Maximum performance

Whether you are looking for **high speed** or **ultimate versatility**, the GTMax-i 3.0S *Connect* 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

### 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.





## The most energy-efficient main drive has now become even more energy-efficient

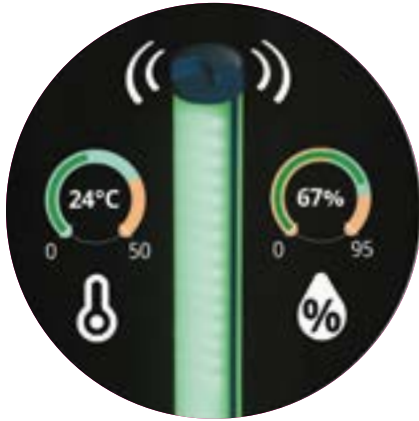
The redesigned **SUMO** drive concept pioneered by Picanol is the most energy-efficient main drive on the market. The oil-cooled SUMO main motor drives the weaving machine directly without the need for a belt or a clutch and brake.

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**. The new integrated temperature sensor completes the redesign.



## Smart energy use thanks to improved lubrication

As well as **filtering and cooling the oil**, the integrated lubrication system with central oil circulation 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.



## No more doubts about the temperature and humidity

Every Picanol machine has an **integrated temperature** and **humidity sensor**. The data is available through PicConnect.

## 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.



## Sustainability Inside



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

The optimized **electronically controlled take-up and let-off** are fitted as standard on the GTMax-i 3.0S *Connect*. 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**.



## Prepare your weaving mill for the next industrial revolution

**PicConnect** is the gateway to all of **Picanol's digital services**, from industrial IoT to service-related applications. PicConnect enabled means that the machine is ready to fully leverage PicConnect applications.



## 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.



## The reliable electronic platform, ready for Industry 4.0

The **BlueBox** electronic platform, designed to meet the needs of next-generation weavers, got an update to enable improved data handling. **Data gathering** and data access afford new opportunities to make your production even more efficient.

The combination of the well-known **reliability, flexibility** and the new design of the BlueBox, sets the benchmark for electronic platforms in the market.

**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.



**Driven by  
Data**



## 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 PicConnect - Picanol's online platform offering digital services - or to a central monitoring system by a parallel or serial ethernet connection.



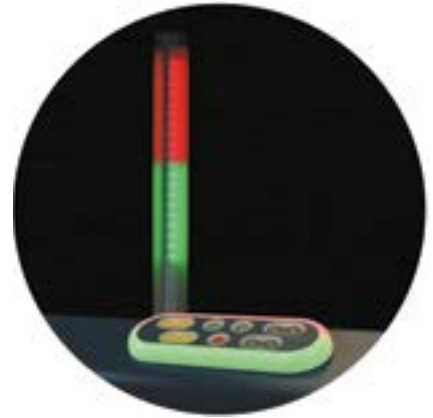
## Enjoy operating the machine

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.



## Smart visibility of the machine status

The light combination of the **LED signal torch** and the LED strip on the **push buttons** is **synchronized**.



## Full and independent control of the selvedges

With the independent, motorized **Electronic Selvedge System (ELSY)**, the user can set the weaving pattern and crossing of the selvedge 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 Connect

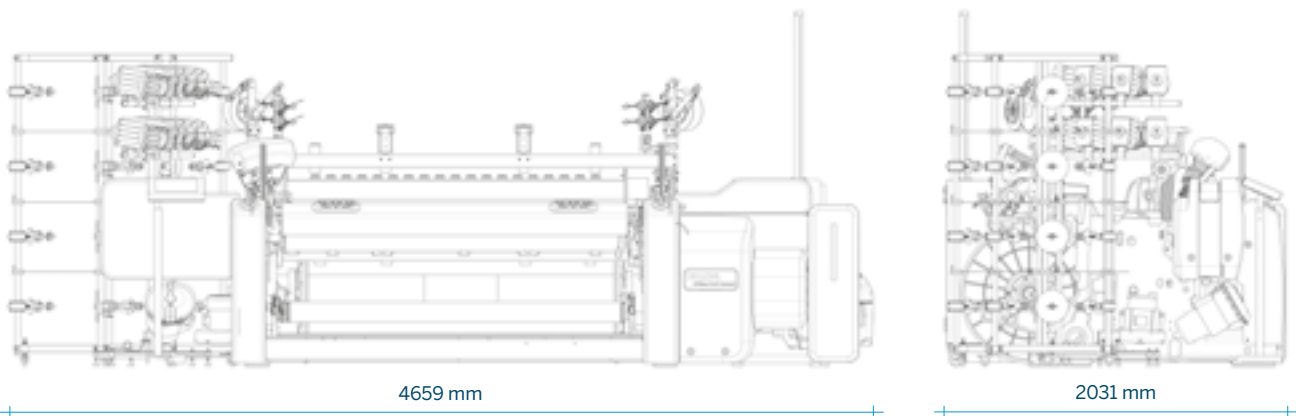
## Technical specifications

\* patented  
\*\* patent pending

Fabric specifications				
Usable widths	190, 220, 230, 240, 250 and 340 cm			
Width reduction	60 - 90 cm depending on reed width			
Yarn range	Spun yarns	Nm 200 - Nm 3	Ne 120 - Ne 1.8	
	Filament yarns	20 den - 3,000 den	22 dtex - 3,300 dtex	
	Warp yarns	sized, unsized, twisted, non-twisted, intermingled filament		
		<b>Standard</b>	<b>Optional</b>	<b>Aftermarket</b>
Filling insertion				
Filling selection	Up to 12 colors or yarn types (filling presenter with insertion position)	●	-	●
	Weaving 2 weft yarns simultaneously *	-	●	●
Grippers		●	-	-
	GOH - Guided Gripper	-	●	●
	FF - Free Flight gripper	-	●	●
Prewinders & options	PSO - Prewinder Switch-Off	-	●	●
Filling detector	Piezo-electric filling detector with anti-2 protection	●	-	●
Filling cutter	Mechanical filling cutter	●	-	●
Warp let-off				
Let -off system	ELO - Electronically controlled Let-Off	●	-	●
Warp beam	Diameter 805 mm - 1,000 mm	●	-	-
	Fancy beam system on top	-	●	●
Backrest	Single or double backrest roller	●	-	●
	TSF -Tension Sensor Feeler roller	●	-	●
	Warp tension compensation with springs	●	-	●
Electrical warp stop motion	6 contact bars 25 mm pitch or 8 contact bars 16 mm pitch	●	-	●
Cloth take-up				
Take-up system	ETU - Electronically controlled Take-Up	●	-	●
Cloth take-up	Double pressure roller	●	-	●
	Diameter of cloth roll: 600 mm	●	-	●
	PBM - Picanol Batching Motion (up to diameter 1,500 mm)	-	●	-
Fabric illumination	LED illumination above reed	-	●	●
Machine drive and control				
Main control	BlueBox electronic platform	●	-	-
Main motor	SUMO main motor with direct machine drive	●	-	●
	OptiSpeed (automatic stepless speed variation)	●	-	-
	Automatic full pickfinding *	●	-	-
Reed motion	Positive double-sided conjugated cams in both side frames	●	-	-
Shedding motion		●	-	-
	Positive Dobby (R) max 20 harness frames with levelling	-	●	●
	Execution for electronic Jacquard (J) (CAN)	-	●	●
	AKM - electronic setting of the crossing moment	●	-	-
Lubrication	By forced circulation of filtered oil	●	-	-
	Grouped grease points for manual lubrication	●	-	-
Display	LCD touch screen with color display	●	-	●
Smart signal lights	Pushbuttons on front panel with integrated signal lights *(design)	●	-	●
	LED signal torch **	●	-	●



		Standard	Optional	Aftermarket
<b>Harness frames</b>				
Driving element	DRC2 for T-190 – T-250	●	-	-
	S-Connection for T-340	●	-	-
Harness frames	For 13" or 15" heddles	●	-	●
<b>Selvedge formation</b>				
Selvedge systems	ELSY	-	●	●
	- independent electronically controlled selvedge system			
	MTI - Mechanical Tucking-In	-	●	●
Selvedge cutters	Electronic cutter	●	-	●
	Hotwire cutter	-	●	●
Temples	Cylinder temples	●	-	●
<b>Monitoring and software tools</b>				
PicConnect enabled		●	-	-
Display	Self diagnosis	●	-	-
	Stop distribution reporting	●	-	-
Connection provided for major weaving room monitoring systems (parallel communication)		●	-	-
Bi-directional communication on ethernet or serial connection		-	●	●
Climate monitoring		●	-	-
<b>Safety</b>				
Light curtain		-	●	●



RCB0130 - 4 - R - 190

### How to read the name

RCB0130 – 4 – R – 190 → Reed width  
 ↳ Shedding motion  
 ↳ Number of filling colors

### Regulations

In designing the GTMax-*i* 3.0S Connect, Picanol has taken into account current 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 & Weave-Up**

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.



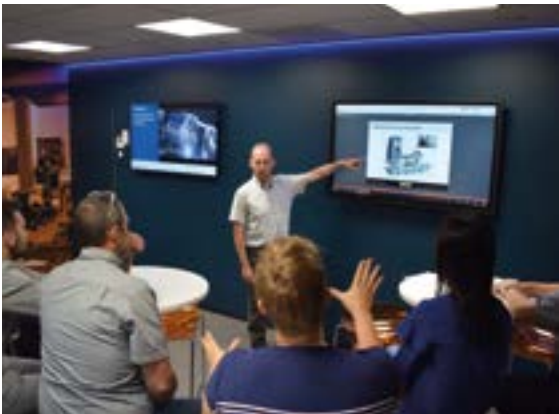
## Training is part of the deal Picanol makes with its customers

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 m<sup>2</sup>. 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.



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

# Curious about our **upcoming news**?

Please check our website [www.picanol.be](http://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](http://www.picanol.be/training-services).

For more information, please contact your local Picanol agent or Customer Service Representative (CSR). See [www.picanol.be/agents](http://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](http://www.picanol.be) and discover our new integrated weaving calculators online.







# About Picanol

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. Picanol develops, manufactures and sells high-tech weaving machines based on airjet and rapier technology and offers digital services for its weaving machines, as well as weaving frames and reeds, upgrade kits, spare parts, training and troubleshooting services. Picanol is part of Picanol Group, a business unit of Tessengerlo Group (Euronext: TESB). For more information, go to [www.picanol.be](http://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 03.01.2023.



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