

PICANOL
Let's grow together



OptiMax-i



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His eagerness to grow is our benchmark.



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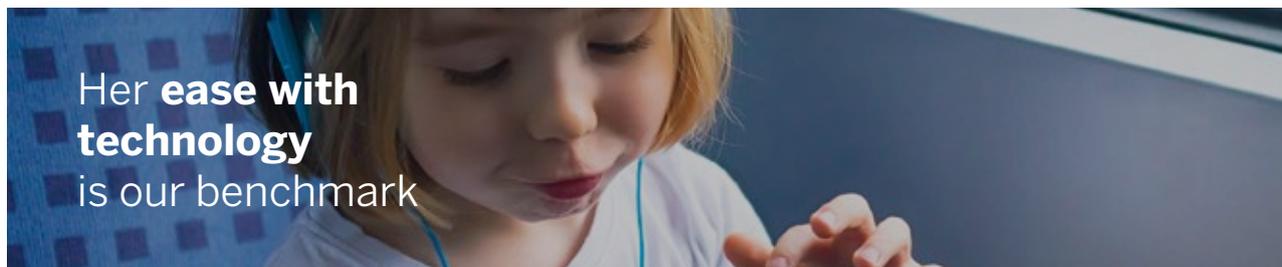
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www.picanol.app

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.**



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.

OptiMax-*i*

The benchmark in rapier weaving

If versatile and productive weaving is your objective, now you can be sure of real added value with the unique, future-oriented OptiMax-*i*.

The OptiMax-*i* offers all the possibilities for growing to the top in your market. Ready for every new opportunity.

Guaranteeing optimum fabric quality.

Best in class for minimum energy consumption.

Optimizing your precious time. And creating space to unleash your utmost creativity.

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



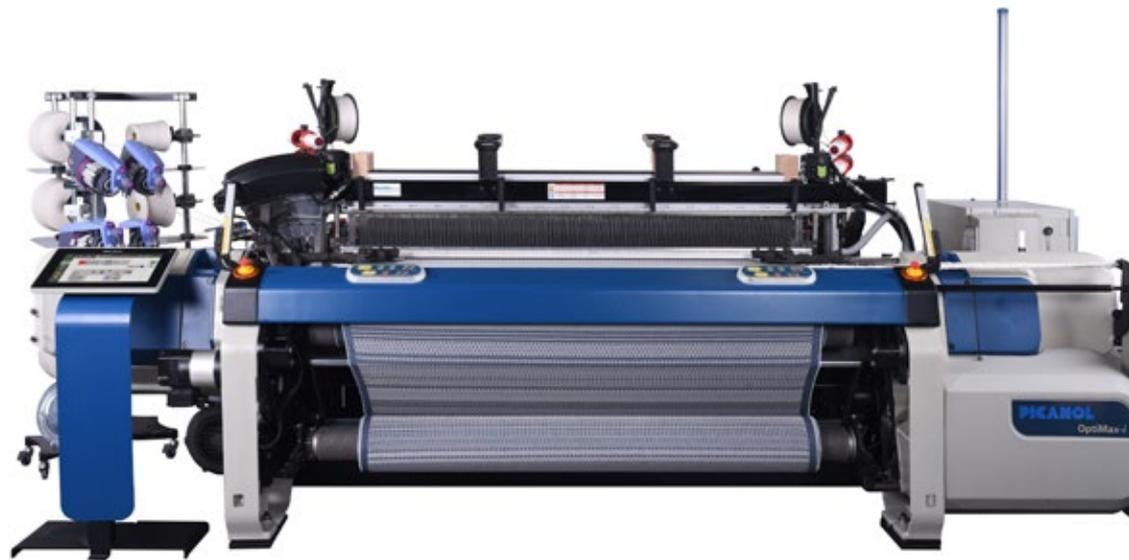


Scan the pictures of the features in this brochure with the Picanol app and learn more about their possibilities.



Gentle treatment of all kinds of yarn

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



Maximum performance for each application

Whether you are looking for high speed, ultimate versatility or dedicated technical applications, the OptiMax-i can be equipped with the **most suitable rapier system**.





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 sley is driven by conjugated cams located under the fabric line to guarantee **equal beat-up force** over the full width.



Smart Performance



Future-proof thanks to modular design

The **highly modular machine concept** allows upgrades and modifications to be retrofitted as desired, with a wide range of variants in shedding motion, cutter design, warp beam set-up etc.



The quickest way to get new styles up and running

With the Picanol **Quick Style Change (QSC)**, preparation of a new style is done outside the weave room. Various other design aspects also facilitate quick setting with maximum digitization, greatly contributing to the uptime of the installation.

Eliminate left-hand side waste

EcoFill was introduced with the main focus on applications where high value weft yarns are used. Building further on the experience with this system, EcoFill is now further developed to be used up to 4 colors.



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.





Minimize the length of the right-hand side weft waste



Improved control of weft length is assured by positive opening of the right-hand side gripper with the **Electronic Right Gripper Opener (ERGO)**. ERGO allows individual setting through the display of the gripper opening timing per weft channel.



Sustainability Inside

Still the most energy-efficient main drive available

The **SUMO** concept pioneered by Picanol is still the **most energy-efficient main drive available**. 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**.



Reduce load on clima up to 40%

The integrated **water cooling** system enables some 40% of the heat generated by the machine and the dobby to be evacuated outside the weaving department.

The highest level of digitization

The advanced **15" interactive color display** is a new platform ready for all needs and applications, now and in the future.



Master the filling tension

PosiFlex manages the **yarn tension** within the pick by controlling the position of the **flexbrake**, according to pre-defined braking profiles.



Weft knots automatically extracted during weaving

The **Picanol Knot Extractor (PKE)** detects the position of knots in the weft yarn, whether from a bobbin change or indeed all weft knots. This safeguards fabric quality and maximizes productivity as the machine continues to weave while the knot is removed.



Reduce the impact of bobbin failures

With its **Prewinder Switch-Off (PSO)** 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

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.

Connect, centralize and manage machine data

A full set of software packages to handle the machine data in the best possible way, including stand-alone mode. The **LoomGate network connection** even allows data from these packages to be sent smoothly to and from the machine.



Driven by Data



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.

Full, quick data control at your finger tips

The advanced 15" interactive color display allows quick access and control of all settings. The intuitive interface, on the machine with the highest level of digitization, sets a new benchmark in the market.



Full and independent control of the selvedges

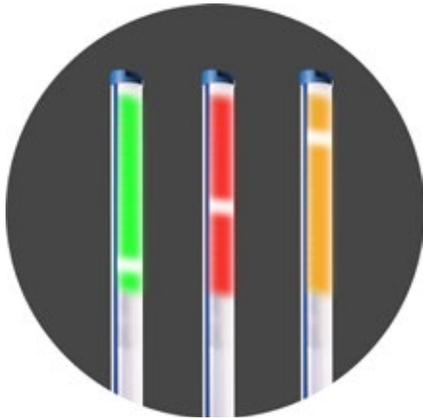
With the independently electronically controlled selvedge system (ELSY) the weaver has full control.



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.





Smart visibility of the machine status

The **LED signal torch** can be fully **customized** by the user. The signal lights also show the duration of the status, so the weaver has full understanding of the situation at a glance.



The ease of width changes in a minimum of time

All components involved in a width change are mounted on a **single support**. A **display procedure** guides you through the adjustment of the gripper stroke.



On Picanol only! The setting of shed angles made easy

Clear markings on each dobby lever make it very easy for the user to set the required shed angle. This feature is unique to Picanol and indeed appears on all Picanol machines.



Intuitive Control

OptiMax-*i* Technical specifications

Available for the
aftermarket 

Fabric specifications

Useful widths	GC version	190, 210, 220, 230, 250, 280, 300, 320, 340, 360, 380, 400, 430, 460 and 540 cm
	FF version	190, 210, 220, 230, 250, 280, 300, 320, 340 and 360 cm
Width reduction	80 - 100 cm depending on reed width	
Performance	Filling insertion rates up to 1700 m/min depending on style and machine width	
Yarn range	Spun yarns	Nm 200 - Nm 3 (Ne 118 - Ne 1.8)
		Free Flight up to Nm 1 (Ne 0.6)
	Filament yarns	20 den - 3,000 den (22 dtex - 3,300 dtex)
		Free Flight as fine as 10 den (11 dtex)

Filling insertion

Filling selection	1 - 12 colors or yarn types (filling presenter with insertion position)	Standard
	Weaving 2 weft yarns simultaneously (patented)	Optional 
Prewinder	Prewinder Switch-Off (PSO)	Optional 
	Pneumatic feeder threading up	Optional
Active filling brakes	Programmable Filling Tensioner (TEC)	Optional 
	Electronic Filling Tensioner (EFT) (patented)	Optional 
Filling detection	Piezo-electric filling detector with anti-2 protection	Standard
	SmartEye filling detector	Optional 
Filling cutter	Electronic Disc Cutter (EDC)	Standard 
	Mechanical filling cutter	Optional 
	SmartCut filling cutter	Optional
	Electronic Right-hand Gripper Opener (ERGO) (patented)	Optional 
	Guided Positive Gripper (available for dedicated technical applications)	Optional 

Warp let-off

Warp beam	Diameter 805, 1,000 or 1,100 mm	Standard
	Double warp beam for reed widths of 250 cm and up	Optional 
Fancy beam on top	Diameter 805, 1,000 or 1,100 mm	Optional 
Backrest	Single roller, general purpose	Standard
	Double backrest rollers with possibility to add drag rollers	Optional 
	Direct Warp Control (DWC) (available for dedicated technical applications) (patent pending)	Optional
	Universal type with built-in warp tension sensor (TSF)	Standard
	Warp tension sensors mounted in the warp (TSW)	Optional
	Warp tension compensation (spring)	Standard
Warp stop motion	Electrical 6 electrodes 25-mm pitch or 8 electrodes 16-mm pitch	Standard
	Detection per electrode	Optional
	Sectional warp stop motions	Optional
	Quick Style Change system (QSC)	Optional 

Cloth take-up

Fabric illumination	LED illumination above reed	Optional 
	LED illumination above back shed	Optional 
	LED illumination under the fabric	Optional 
Cloth take-up	Diameter of cloth roll	
	550 mm (warp beam 805 mm), 600 mm for larger beams	Standard
	Picanol Batching Motion (PBM) system for diameters up to 1,500 mm	Optional
	Take-up directly over pressure roller	Optional

Machine drive and control (BlueBox platform)

Main motor	SUMO main motor with direct machine drive (patented) OptiSpeed	Standard Standard	
Automatic full pickfinding (patented)		Standard	
Reed motion	Positive conjugated cam units (2, 3 or 4, depending on machine width)	Standard	
Shedding motion	Positive cam (P), max. 8 harness frames, 12-mm pitch Automatic shed levelling with cam motion	Standard Optional	
	Positive dobbie (R) for 20 or 24 harness frames, 12 mm pitch with levelling	Standard	
	Execution for electronic jacquard (J)	Standard	
	Execution for servo-driven jacquardette	Optional	
	OptiLeno: continuous or alternating S/Z full-width leno system (patented)	Optional	
	Electronic setting of the crossing moment (AKM)	Standard	
Electronically controlled let-off (ELO) and take-up (ETU) system		Standard	
Centralized lubrication, forced circulation of filtered oil to all major drive functions		Standard	
Water cooling system		Optional	
Interactive display	15" touchscreen	Standard	

Harness frames

Harness drive DRC2 or DRC30		Standard	
Standard harness frames		Standard	
Extra reinforced harness frames		Optional	
Hybrid harness frames		Optional	

Selvedge formation

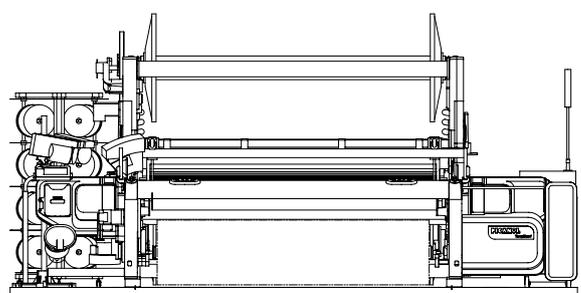
Independently electronically controlled selvedge system (ELSY)		Optional	
Tucked selvedge (mechanical or air tucker)		Optional	
Central selvedge		Optional	
Hotwire cutter		Optional	
Full-width temple		Optional	
EcoFill 2C/4C		Optional	
Waste Ribbon Winder		Optional	

Monitoring and software tools

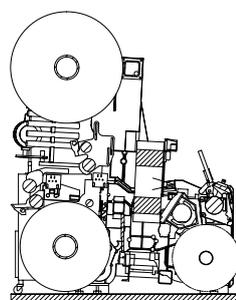
Loom monitoring and reporting on machine display		Standard	
Connection provided for major weaving room monitoring systems (parallel communication)		Standard	
Bi-directional communication on ethernet or serial connection		Optional	
Picanol PC Suite (Picanol Pattern Editor (PPE), Picanol Style Administration (PSA), Loomgate, Password Administration, Densigraph)		Optional	

Safety

Light curtain (depending on country of delivery)		Standard	
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OptiMax-i-4-R-190



2009 mm

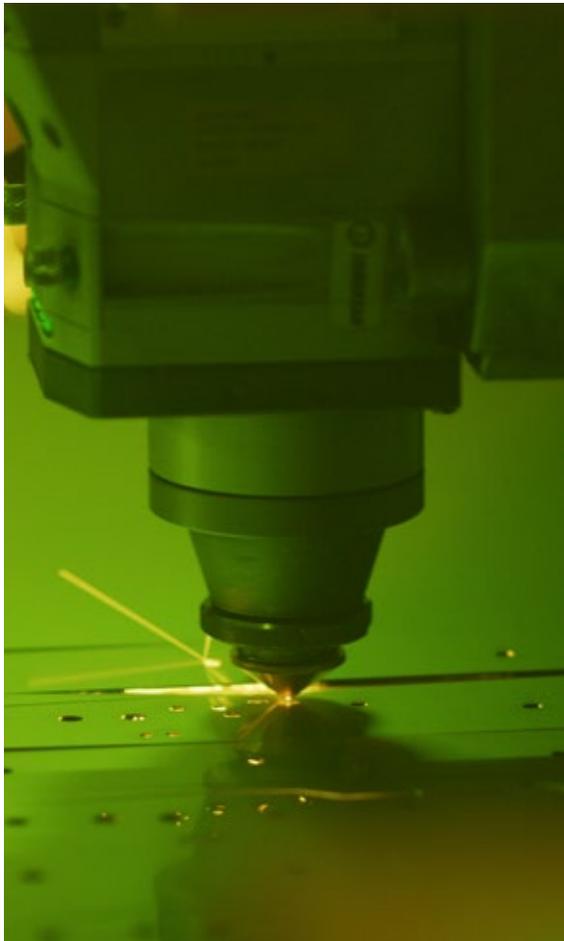
Regulations

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

How to read the name

OptiMax-*i*-4-R-190 → Reed width
 ↳ Shedding motion
 ↳ Number of filling colors

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.



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.

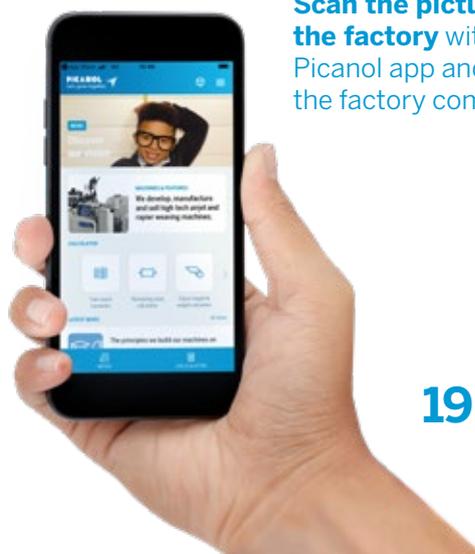
Three fully equipped rooms (each with weaving machines, cut models, mini workshop etc.) cover a total area of 270 m². This new knowledge center allows Picanol to train technicians from customers around the world in optimal conditions.

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.



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.

Scan the pictures of the factory with the Picanol app and see the factory come alive.



Curious about our **upcoming news**?

Download our new app on your mobile phone or tablet and thanks to the news notifications feature you will be the first to know about all our innovations. This app is updated frequently so keep an eye out for new arrivals and updates.

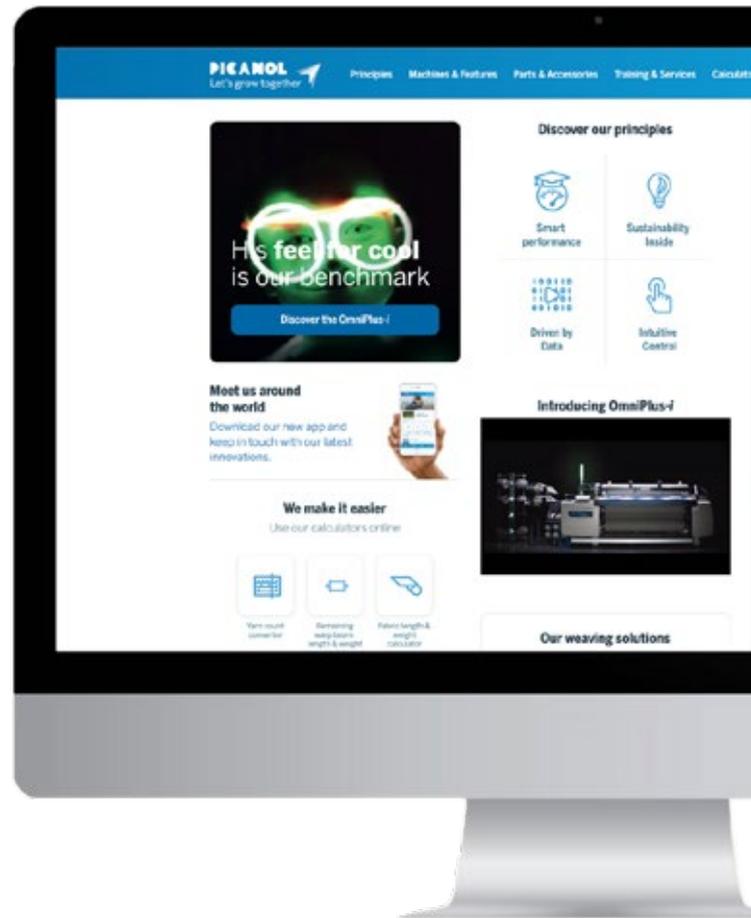
You can also subscribe to our **newsletter** at www.picanol.be/newsletter to be the first to learn about our latest news, updates and events.

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, or **download the app** with the calculators.



Meet us around the world

During the year, Picanol is present at events and trade fairs around the world. Thanks to the "Trade Fair" function on our app, **you can prepare for your visit.**

With the Picanol app you can discover the machines and the features on show at the main trade fairs, in preparation for your visit. Download the app at www.picanol.app.



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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 01.04.2020.



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