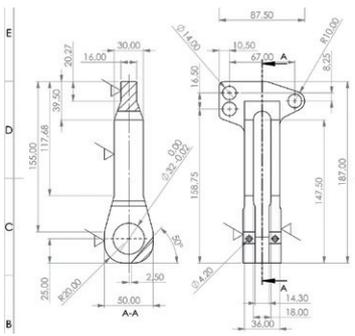


PHOENIX

by IQSPS



生 ま れ 変 わ る	पुनर्जन्म	재탄생	涅槃 重生
	Yeniden Doğuş	Renacimiento	
	Taassünd	Resuscytacja	
	Wedergeboorte	Wiedergeburt	
	Αναγέννησης	Réincarnation	Atdzimšana
Återfödelse	Rinascita	إحياء	Rebirth
Возрождение	Znovuzrození	Atgimimas	Renascença



Partner in Weaving Technology



Innovation

Quality

IQ

Reliability

Honesty

2010

Founding of IQ-SPS GmbH

2013

Construction of first production facility and administration building

2015

Construction of second production facility and installation of mechanical machinery (lathe, milling, drilling, welding)

2017

Installation of CNC-machining center

2019

Construction of third production facility

2023

Presentation of Phoenix at ITMA in Milan, Italy

Since 2010, IQ-SPS GmbH is your competent and reliable partner for projectile weaving machines.

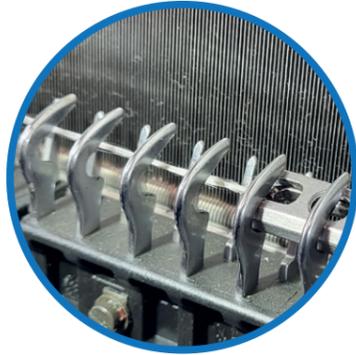
Our customers' wishes take top priority for our specialists.

With our upgrades, we ensure that your machinery meets your requirements concerning weaving width, weaving quality, reliability and efficiency. But it is not only machinery that we offer, we will also assist you with our wide variety of services such as trainings, consulting and our fast and reliable spare parts service – worldwide.

We will be glad to convince you of our range of offerings and are looking forward to your phone call, your email or your visit to www.iq-sps.com.



The two managing directors, Paul Horstmann and Thomas Huber, are looking shoulder to shoulder into the future



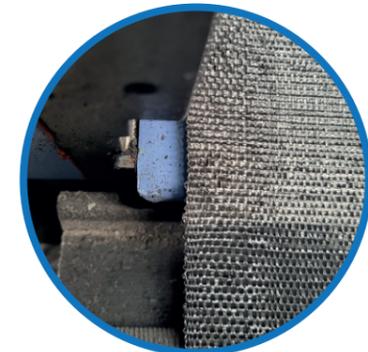
Highest weft insertion on projectile machines: 1600 m/min



Best energy efficiency of all weaving systems: 6,5 kW/h maximum



User friendly technology



No yarn waste



Extra wide weaving machines



Smallest shed



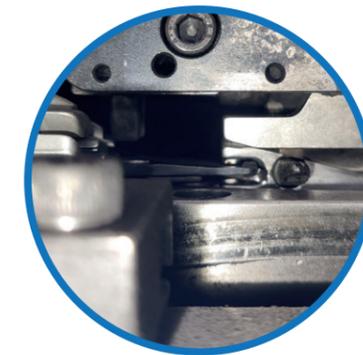
Reinforced weaving machines



Shines with maximum economy



Saves 10 tons of CO2 and 5 tons of steel per machine



Positive controlled weft insertion



IQSPS - Phoenix
Special Machinery•Parts•Services

Extra wide weaving machines

- ✓ weave extra wide fabrics
- ✓ increased machine performance
- ✓ familiar machine operation
- ✓ extended service life
- ✓ constructed according to the current CE – machine building regulations
- ✓ nominal weaving widths from 430cm up to 1200cm

Info:

Do you want to answer your customer's wishes for special or extra wide fabrics?

In this case the acquisition of a new, expensive special weaving machine might not be necessary.

Using our know-how and our experience we upgrade available machines. A modified used machine is in no way an 'old' machine. It is rather a machine that has been made state-of-the-art with the use of proven technology at affordable costs.

- Combine your weaving machines with **upper warp beam systems** by IQ-SPS
- Upgrade single-colour machines to two or even four colours



IQSPS - Phoenix
Special Machinery•Parts•Services

Reinforced weaving machines

- ✓ robust weaving machines up to 20.000N warp tension p/m of fabric
- ✓ available for widths from 190cm up to 700cm
- ✓ electronic brake/clutch module
- ✓ extremely heavy let off system with Siemens let off motor
- ✓ extra robust take off system
- ✓ many additional extras

Info:

We can even make your machines ready for **wire weaving**. Please contact us for more information.





IQSPS - Phoenix
Special Machinery•Parts•Services

*Highest weft insertion
on projectile machines:
1600 m/min*

- ✓ Phoenix is the most powerful projectile loom ever built.
- ✓ 1600 m/min weft insertion rate
- ✓ Phoenix technology offers unlimited flexibility in terms of fabric widths and weight.

Conclusion:

The Phoenix machine is designed for mass production as well as individual technical fabrics of all kinds. The machine shows its full strength with wide and robust fabrics.



IQSPS - Phoenix
Special Machinery•Parts•Services

*Best energy efficiency
of all weaving
systems: 6,5 kW/h*

- ✓ With an average of 6.5 kW/h, the Phoenix is by far the most energy-efficient weaving machine available today.
- ✓ Especially nowadays, such low-energy production machines are indispensable. They save important resources and costs throughout the entire life cycle.
- ✓ Saving just 5kW per hour adds up to 43,000kW/h at the end of the year.

Conclusion:

The Phoenix already pays for itself through its low energy cost. It achieves this above-average energy efficiency thanks to its large machine width, which allows multiple fabric sheets to be produced at the same time. As a result, the Phoenix achieves a very high insertion rate even at low speeds, which is gentle on the material and production equipment.



IQSPS - Phoenix
Special Machinery•Parts•Services

User friendly technology

- ✓ sophisticated design
- ✓ electronic let-off and take-up drive
- ✓ fast article changeover by replacing entire elements
- ✓ functional reliability at the highest level through controlled transfer of the weft thread
- ✓ short rear shed for fast warp breakage repair
- ✓ smallest shed resulting in fewer warp thread breaks
- ✓ low space requirement - fast operation

Conclusion:

The high level of user-friendliness for weavers and mechanics means that staff can operate a larger number of machines with maximum efficiency.



IQSPS - Phoenix
Special Machinery•Parts•Services

No yarn waste

- ✓ yarn waste due to auxiliary selvages is completely eliminated on both the infeed and outfeed side
- ✓ no loss of warp or weft yarn
- ✓ enormous cost savings
- ✓ savings in labour costs because no auxiliary selvage bobbins are required

Conclusion:

A weaving machine with no yarn waste is undoubtedly a resource-saving system. It saves the environment and reduces costs for its operator. This gives you further cost advantages, especially when using expensive yarns.



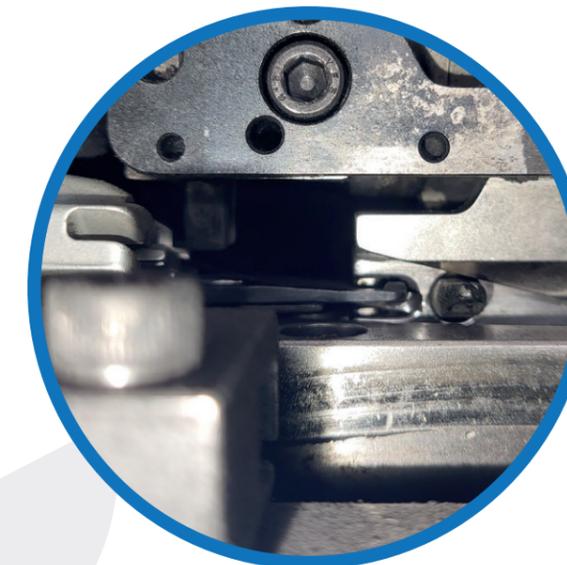
IQSPS - Phoenix
Special Machinery•Parts•Services

Smallest shed of all weaving systems

- ✓ smallest shed of all weaving systems
- ✓ A large number of heald frames can be handled without problems.
- ✓ maximum flexibility in fabric patterning

Conclusion:

The Phoenix is enormously gentle on the warp yarn, which leads to significantly fewer warp thread breaks. The weaver is thus able to operate a higher number of machines.



IQSPS - Phoenix
Special Machinery•Parts•Services

Positive controlled weft insertion

- ✓ controlled transfer of the weft thread to the projectile
- ✓ controlled transfer of the weft thread from the insertion into the shed to the weft end gripper, which guides the thread to the fabric in a controlled manner
- ✓ The weft thread is under the control of the machine elements at all times.

Conclusion:

Even in large installations of several hundred weaving machines, this unique control of the weft thread over the entire insertion time results in the highest efficiency even with extreme yarns such as PP-ribbons, which are difficult to achieve and manage with other weaving technologies.



IQSPS - Phoenix
Special Machinery•Parts•Services

*Saves more than
10 tons of CO2
per machine*

- ✓ sustainability is in the Phoenix DNA
- ✓ Re-use of existing components saves up to 10 tons of CO2 and 5 tons of steel per machine

Conclusion:

With this attribute, the Phoenix is right up to date. At the same time, the user does not forego anything - on the contrary, thanks to its carefully thought-out composition, the Phoenix makes an uncompromising statement in mechanical engineering.



IQSPS - Phoenix
Special Machinery•Parts•Services

*Shines with
maximum economy*

- ✓ lowest energy consumption of all weaving machine systems
- ✓ no material loss due to the use of insertion edges
- ✓ low spare parts consumption due to reduced electronics
- ✓ extremely high reliability due to controlled thread transfer
- ✓ extremely simple operation, fast thread breakage repair

Conclusion:

Uncompromisingly mature technology, combined with manageable electronic components, leads to a user-friendly handling in the sense of your employees. All this, combined with the highest performance, leads to an unbeatable price/performance ratio.



IQSPS - Upgrade

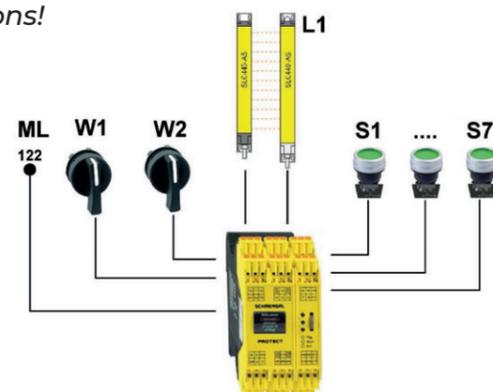
Special Machinery•Parts•Services

Safety Light Barrier

- ✓ active personal protection
- ✓ reacts before the moving element can be touched
- ✓ simple handling
- ✓ rugged construction
- ✓ constructed according to the current CE – machine building regulations
- ✓ upgradable for the machine types P7100 to P7250 (additional types on request)

Please Note: _____

The original safety light barrier does not comply with the current CE — machine building regulations!



IQSPS - Upgrade

Special Machinery•Parts•Services

Frequency Converter

- ✓ convenient handling of machine speed adjustments
- ✓ increases machine efficiency
- ✓ increases fabric quality
- ✓ reduces stop marks
- ✓ upgradable for the following machine types: PU, P7100, P7200, P7150, P7250, P7300, P7300HP





IQSPS - Upgrade

Special Machinery•Parts•Services

Control Cabinet

- ✓ more spacious, more user-friendly
- ✓ all controller modules in one place
- ✓ installed at weft insertion side
- ✓ shorter peripheral cables and thus reduction of possible interfering signals
- ✓ shorter walking distances for operation of control cabinet



IQSPS - Upgrade

Special Machinery•Parts•Services

Cover Concept

- ✓ easy handling
- ✓ optimized design
- ✓ low weight
- ✓ improvement of personal protection
- ✓ low costs





IQSPS - Upgrade

Special Machinery•Parts•Services

PosiLeno (Groz Beckert)

- ✓ **upgrade kit** to weave with PosiLeno System from Groz - Beckert to weave up and down leno
- ✓ available for all sizes and types of projectile machines
- ✓ easy handling
- ✓ installation on-site in your factory
- ✓ machine can work with maximum speed (rpm) also for Leno fabrics
- ✓ lower spare parts consumption
- ✓ higher fabric quality
- ✓ exclusively available at IQ-SPS



IQSPS - Upgrade

Special Machinery•Parts•Services

Reinforced Deflecting Levers

- ✓ upgrades P7100 and P7150 to the reinforced lever of the P7300HP
- ✓ includes radial needle sleeve
- ✓ extremely stable
- ✓ suitable for high speeds
- ✓ developed to absorb radial forces
- ✓ particularly easy to install





IQSPS - Upgrade
Special Machinery•Parts•Services

Electronic Let Off Device

- ✓ motor with 200N maximum torque
- ✓ high torque gear
- ✓ 50.000N axial force
- ✓ completely new design
- ✓ easy adjustment

With this warp reduction system you can achieve warp pull forces which by far exceed the standard



IQSPS - Upgrade
Special Machinery•Parts•Services

Warp Tension Gauge

- ✓ optimal warp tension control
- ✓ reproducible adjustment of warp tension
- ✓ from 2.000cN up to 5000N
- ✓ easy handling



IQSPS - Upgrade
Special Machinery•Parts•Services

Selvedge Winder SPS Bull 1000

- ✓ strip width up to 100mm
- ✓ capacity on roll for diameter outside up to 400mm
- ✓ roll diameter inside 60-68mm
- ✓ roll length 400mm
- ✓ winding force 10 - 35N
- ✓ winding speed 0 - 10m/min or 27rpm (several options)
- ✓ power supply 400/230 VAC 50Hz
- ✓ easy handling for tension adjustment
- ✓ very stable construction and high stability



Specification sample for net fabrics

Phoenix P540 N2 EP D12 R

- 2 colours
- automatic pick finding device
- automatic shed formation device
- electric projectile brake
- cycle lubrication
- weft brake electronic, type on customer's demand
- take-up roller mechanic
- take-up roller D=160 mm
- pressure roller D=133 mm
- whip roller
- deflecting roller
- electric let-off device
- prepared for warp beam D=150/1016 mm
- excentric machine EP 10 with 6 cams
- 6 harness drives
- 3 contact bars
- 26 projectiles, type on customer's demand
- speed: 300 rpm on full size
- weft insertion 1600 m/min
- CE-certification complying with the latest standards

Price: on request and depending on customers' specification



Possible applications



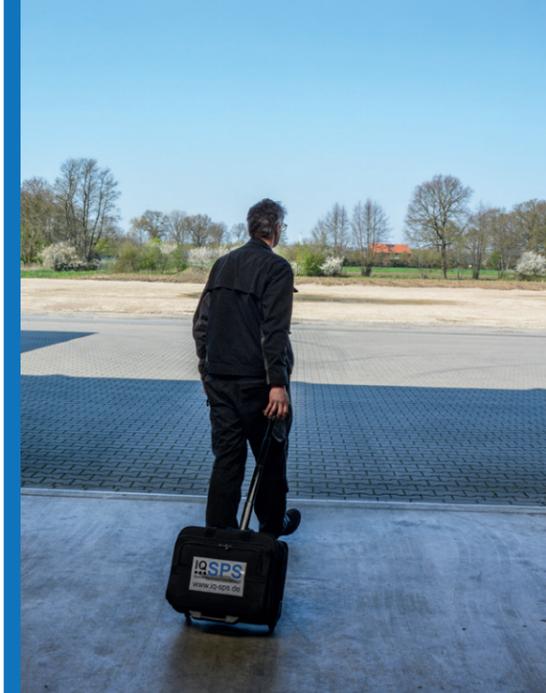


Spare Parts

We have a large assortment of high-quality spare parts for Projectile Weaving Machines in stock – most of them are permanently available in our warehouse.

Please contact us via phone, mail or fax.

Of course we will process your inquiry in a fast, uncomplicated manner and with short delivery times.



Service

Perfectly equipped and adjusted state-of-the-art machines, a fully trained staff and prompt, qualified help in case of problems – that is how your company will be all set for future challenges.

Our services include general overhauls of weaving machines, even after fire or water damages, repair services for small parts like scissors or projectiles as well as roller coverings for take up rollers and pressure rollers.

Our specialists optimize your machines to minimize production downtime and maximize output – worldwide!

Please contact us!



Consulting

Our specialists help you to make your production processes more effective.

Would you like to increase the productivity of your machines or improve the fabric quality? Are you often faced with technical problems or are you planning to introduce new products?

With our many years of experience, we analyse the current status, develop suggestions for optimization and put them into practice together with you and your employees. A final performance review at the end of the project determines whether all goals have been achieved.



Training

In-depth technical knowledge and thorough, hands-on technical training on the weaving machines are essential for a successful production of high-quality, upmarket fabrics.

With well-trained personnel, you can not only respond more quickly to changing market requirements, it can also optimize machine operation and thus increase both efficiency and fabric quality.

Our qualified experts pass on the know-how acquired in long years of industrial practice and thus ensure that the investments in your machine inventories are optimally used.

Please contact us!



You provide the ideas – we support the implementation!



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