

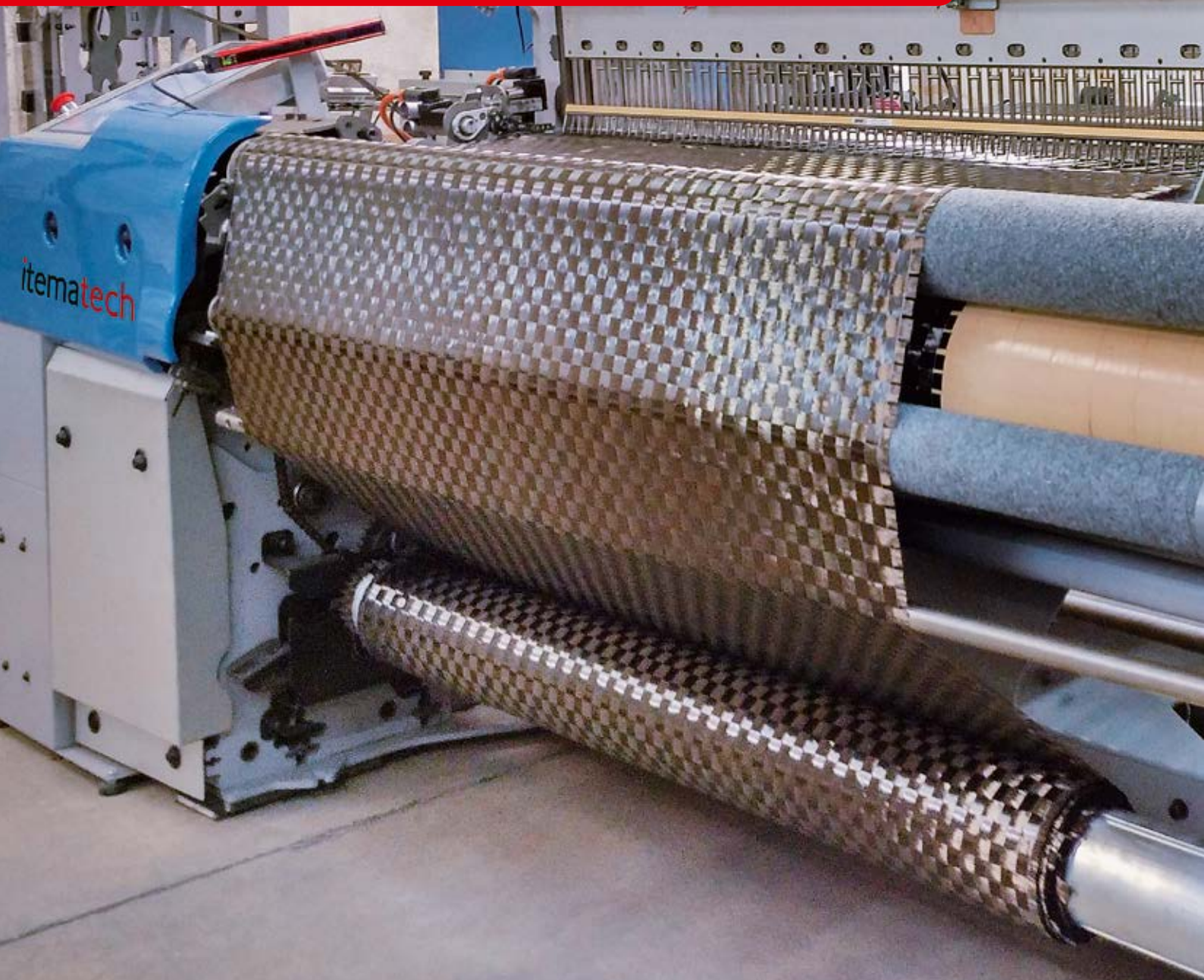
UNI RAP



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UniRap Single Positive Rapiert Weaving Machine





UniRap embodies versatility and provides endless weaving possibilities. Combining the advantages of a positive rapier weft insertion with the gentle yarns treatment ensured by the free fight transfer system, UniRap enables complex and creative fabrics weaving with practically no limitations.

The absence of the weft exchange thanks to the positive rapier weft transfer featuring an open patented rapier system allows the weaver to process the widest range of weft yarns with maximum textile efficiency.

Ranging from refined lamè to high tenacity monofilament yarns, passing through bouclé yarns up to carbon, polyester and polypropylene tape, UniRap provides the possibility to weave sophisticated technical fabrics and innovative fashion styles.

Based on reliable and user-friendly electronic and mechanical platforms and providing excellent ease-of-use, UniRap clearly provides valuable benefits in terms of versatility, performances and reliability guaranteeing to quickly penetrate new market opportunities. The insertion cycle is electronically driven, including the weft clamping settings and the flexible electronic architecture offers real-time management of the on-board automated devices.

Designed as an open platform, UniRap comes to the market in a variety of configurations enabling the weaver to create the perfect loom for his specific requirements, from standard versions with weft feeders up to 12 colors with Jacquard or dobby shedding machines for fancy apparel or furnishing to the single-color zero twist weft feeding for tape yarns up to 30 mm.

UniRap: endless weaving possibilities.

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Outstanding Flexibility To Weave Even the Most Demanding Yarns

Multiple Insertion System Configurations

What makes unique UniRap is its insertion system. Ensuring to successfully weave the widest range of yarns, the weft insertion system features multiple rapier options to meet the specific requirements of any fabric production:

- Rapiers Fancy Version for conventional wefts
- Rapiers Wire Version for metallic or non-metallic single threads up to 2mm in diameter
- Rapiers Tape Version for flat yarns up to 30 mm

Moreover, different rapiers drive system have been implemented to ensure a perfect insertion cycle leading to reliable weft insertion and superior versatility:

- Guided Tape with Hooks in a variety of designs and sizes
- HF System with ribbon and no guiding elements in the shed to ensure an optimal insertion of the most delicate or dense yarns
- Reed Guide System with profiled reeds to eliminate any contact between ribbon and warp

Weft Feeding Configurations

Weft feeding options represent another key advantage of UniRap, ensuring to cover any weaving need:

- Defiler Version with electronic weft color selector up to 12 colors and weft feeder
- 2 Color Derouler Version for technical applications
- Zero Twist Version for tape yarns
- Reed Guide System

Powerful and User-friendly Electronic Platform

UniRap is equipped with a reliable and powerful electronic platform which represents an open, flexible architecture to manage in real-time all the machines parameters and the range of electronic devices present on the loom. The full color touch-screen console acts as a user interface for the weaver, ensuring remote machine control and access to machine data through network connection.

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Main Machine Versions

Basically, UniRap is declined in two main machine versions, both reciprocally and easily upgradeable:

UniRap P—designed to weave complex technical fabrics—and UniRap G—mostly employed to weave innovative fashion fabrics and specific technical textiles.

UniRap P—The effective Pendulum Weft Feeding System

When it comes to weaving tape yarns, UniRap P offers unbeatable textile performances. Designed to effectively insert tape yarns up to 30 mm, UniRap P features the weft feeding Pendulum type which consist in a derouler system with double accumulation buffer. Pendulum ensures superior speed and minimized stress on weft yarns leading to top fabric quality and textile performances.

Moreover, Pendulum guarantees a reduced waste selvage which is limited to a few tens of millimeters.

UniRap P—The reliable Armotion Motorized Main Machine Drive

The machine is equipped with the Armotion motorized main machine drive. Armotion enables to adjust the dobby movement leading to an optimized interaction with warp yarns. Hence, separate control for the loom and the shedding machine are provided thanks to separate motors. Both motors are synchronized and controlled in real-time by the weaver, allowing the shed formation settings while simplifying the functioning mechanism.

UniRap P—Dedicated Advanced Technical Solutions

Special take-up roller versions are available to perfectly handle event the most reduced tensions.

Furthermore, UniRap P features a dedicated tapes drive system which provides a wide weaving variations range, which goes from 300 mm to 1900 mm.

UniRap G—Multiple Warp Beam Arrangement Options

Based on a sturdy structure, UniRap G offers multiple warp beam arrangement options to allow internal warp feeding, such as single and multiple beams up to 1000 mm or outside by creel with calender. Whatever is the option chosen, all the beam arrangements come with motorized let-off and electronic tension control.

All the machine moving parts are made in ultra-resistant steel guaranteeing reduced vibrations and maximum reliability.

UniRap G—Dedicated Weft Cutting Devices

The machine is equipped with dedicated devices to ensure maximum versatility. A complete range of weft cutters, from multi-tasking systems to specific devices such as the one for fiberglass is available.

Moreover, an innovative suction rotating system driven by two inverters allow to easily and successfully weave the widest range of fibers.

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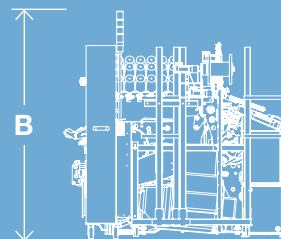
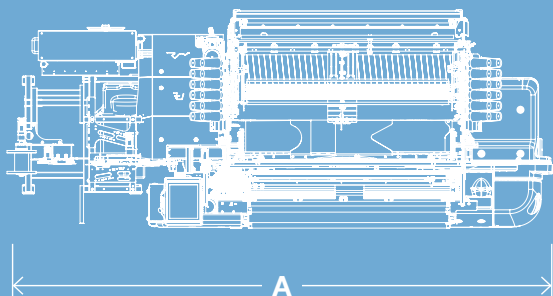


Machine width (A)

4725 mm
5025 mm
5225 mm
5425 mm
5525 mm
5725 mm

Nominal width (B)

1600 mm
1900 mm
2100 mm
2300 mm
2400 mm
2600 mm



Dimensions (mm)

UniRap at a glance

MAIN MACHINE SPECIFICATIONS

Nominal Machine Width (cm) 160, 190, 210, 230, 240, 260

Weaving Width (cm)	Maximum weaving width	+60 mm
	Asymmetric reduction	up to 1000 mm

SHEDDING

Stäubli Dobby 2668, 2670 up to 20 shafts

Electronic Jacquard

FRAME CONNECTION

DRC1 Standard

DRC4 Optional

COLORS

Defiler version 1, 2, 4, 6, 8 or 12 colors freely programmable

Derouler version 1 or 2 colors

Hybrid version 2 + 6 colors

WEFT DENSITY

0.5 up to 200 cm

BEAM ARRANGEMENT

Single for 800 or 1000 mm flanges

Multiple beam on request

Calender for external warp creel

RACEBOARD

Guided with different shaped hooks

HF version without hooks in the shed

RGS with profiled dents reed

BACK-REST ROLLER

Overall tension reading system by loadcell

Fixed or rotating

Chromed, plated or “satin” finish cylinders

SELVEDGES

Independent motorized leno devices for 2 or 4 ends, lateral and central

Motorized cutters, lateral and central

Thermal cutters for welded selvages

Tuck-in selvedge devices, lateral and central

OTHER

Arrangement for external batcher

LED lighting for reed area

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Itematech is the brand-new Iteima business unit exclusively dedicated to technical fabrics. Unique in the industry, Itematech leverages the expertise and know-how of Iteima and Panter technology to provide the market with the widest range of best-in-class technological solutions to weave technical fabrics.



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