







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.

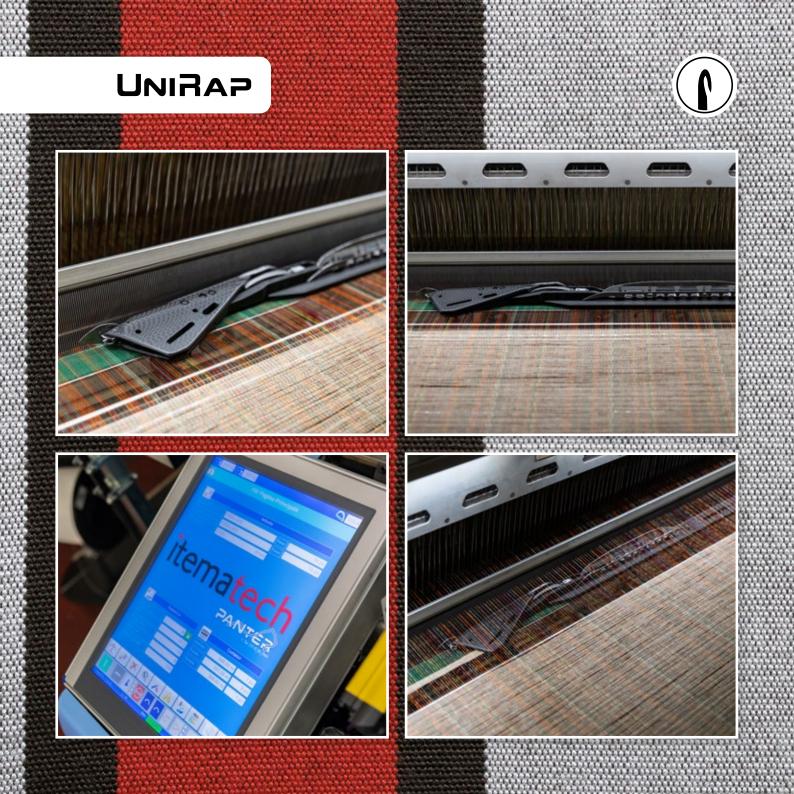
The absence of the weft exchange thanks to the positive rapier weft transfer featuring an open patented rapier system allows the weaver to process the widest range of weft yarns with maximum textile efficiency.

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.



### **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

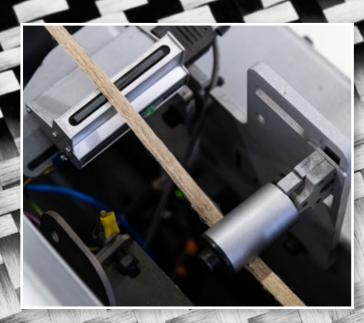
Weft feeding options represent another key advantage of UniRap, ensuring to cover any weaving need:

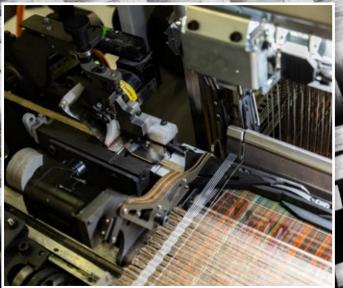
- Defiler Version with electronic weft color selector up to 12 colors and weft feeder
- 2 Color Derouler Version for technical applications
- Zero Twist Version for tape yarns
- Reed Guide System

#### 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.

# UNIRAP







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.

Morever, Pendulum guarantees a reduced waste selvedge 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

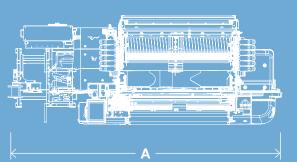
The machine is equipped with dedicated devices to ensure maximum versatility. A complete range of weft cutters, from multi-tasking systems to specific devices such as the one for fiberglass is available.

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

## UNIRAP

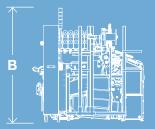
### Machine width (A)

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



### Nominal width (B) 1600 mm 1900 mm 2100 mm 2300 mm

2600 mm



### **Dimensions (mm)**



Nominal Machine Width (cm)	160, 190, 210, 230, 240, 260	
Weaving Width (cm)	Maximum weaving width	+60 mm
	Asymmetric reduction	up to 1000 m
SHEDDING		
Stäubli Dobby 3020 up to 20 sl	hafts	
Electronic Jacquard		
FRAME CONNECTION		
DRC1		Standard
DRC4		Optional
COLORS		
Defiler version	1, 2, 4, 6, 8 or 12 colors freely programmable	
Derouler version	1 color	
WEFT DENSITY		
From 0.25 up to 100 cm		
BEAM ARRANGEMENT		
Single for 800 or 1000 mm flan	iges	
Multiple beam on request		
Calender for external warp cre	eel	
RACEBOARD		
Guided with different shaped	hooks	
HF version without hooks in th	ne shed	
RGS with profiled dents reed		
BACK-REST ROLLER		
Overall tension reading syster	n by loadcell	
Fixed or rotating		
Chromed, plated or "satin" fin	ish cylinders	
SELVEDGES		
Independent motorized leno d	levices for 2 or 4 ends, late	ral and central
Motorized cutters, lateral and		
Thermal cutters for welded se		
Tuck-in selvedge devices, late	eral and central	
OTHER		
Arrangement for external bate	cher	
LED lighting for reed area		



### Itematech

**Itematech** brings together the strong know-how resulting from the merger of Itema and PTMT (formerly Panter) expertise and competences to provide the market with the most comprehensive weaving portfolio to weave technical fabrics and the most skilled and experienced technical textiles team in the industry.

Technical fabrics manufacturers will now on find in Itematech a unique partner and technological reference point to meet and exceed all their needs when it comes to weaving the full range of technical applications.

For more information about Itematech, to contact our Sales Team in your country, to learn more about our weaving machines or to order spare parts, please visit our website **www.itematech.com**.



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







