

# R880



Rapier Weaving Machine

## Vamatex Rapier Weaving Machine

The Vamatex R880 is the result of the long-standing experience in the construction of rapier weaving machines of the internationally renowned technology and machinery provider ITEMA. With its unmatched performance and superior textile efficiency, the Vamatex R880 rapier weaving machine sets new standards for productivity in fabric forming. Its unique rapier drive system carried out by the tried and tested Propeller delivers the increased output of this latest weaving machine technology. The very strong main frame result in highest stability and lowest vibration, thus allowing the easy weaving of heavy weight, demanding styles. With a machine speed of up to 550 picks per minute and a maximum weft insertion rate of 1200 meters per minute, the Vamatex R880 is unrivalled within its league.



### **Performance**

- High weaving speed
- Outstanding fabric quality
- Highest efficiency

### **Investment**

- Low investment
- Quick return
- Long live span

### **Cost of ownership**

- Low energy consumption
- Reduced maintenance
- Low spare parts consumption

### **Simplicity**

- Easy to operate
- Quick style change
- Easy settings

### **Versatility**

- Wide machine configurations
- Optimized, ultra flexible insertion system
- Broad range of filling yarns



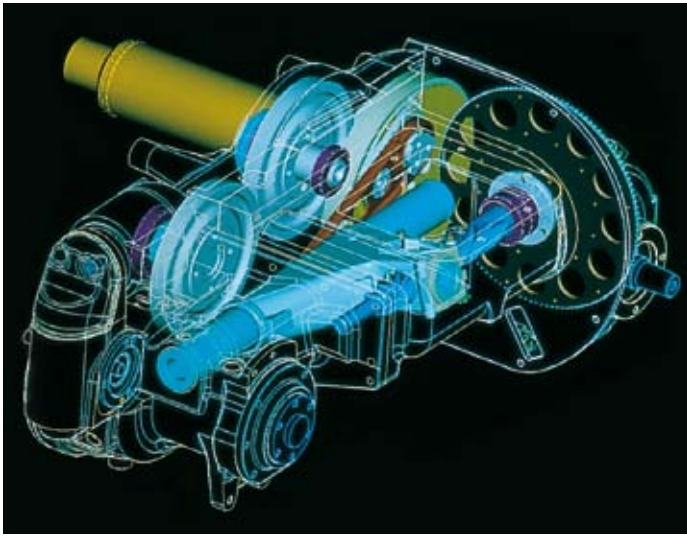
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## Highest Efficiency - Best Price / Performance

### Performance

The Vamatex R880 is the result of the long standing experience in the design of rapier weaving machines. The unique rapier drive system is based on the proven Propeller. Further improvements increased the output of the R880. Very strong steel side frames combined with rigid and sturdy cross members result in a high machine stability and low vibrations.



2009-0024

*The unique and proven propeller system guarantees highest performance.*

### Rapiers

The compact dimensions and small cross section of the Vamatex R880 rapier heads, the optimized guiding elements over the full width of the machine and strong rapier tapes made from carbon assure an optimal performance at high weaving speeds. Special clamps in the rapier heads ensure the insertion of a wide range of cotton and filament yarns.



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*Precise rapier heads insert a broad range of weft yarns.*

### Hi Drive

The new electronic Hi Drive system is fitted on the R880 in the dobby version. Based on the optimized use of the brushless servo motors, it guarantees potentiality and efficiency beyond comparison. Main advantages are:

- simplified mechanics thanks to the elimination of the brake/clutch unit
- superior fabric quality thanks to the motor's high pick-up during restart
- freely programmable speed variation ensuring an effective machine management



2012-0007

*Hi Drive: powerful brushless motor technology.*

### Style changes

On the Vamatex R880 style changes and warp changes are easy and quick. The easy to open spring locks facilitate rapid changes of the warp beam and cloth roller without the use of any tool. Quick warp changes are made easy because the warp beam gear wheel remains on the weaving machine. For symmetrical width adjustments, setting of the temples and the selvedge cutters very little effort is involved and few tools are required.

### Handling and maintenance

The R880 weaving machine has a low maintenance concept. The efficient forced lubricating system makes all gear transmissions virtually maintenance free. Thanks to the low number of moving parts the Vamatex R880 excels in low energy consumption. There are few wear and tear parts and the reduced consumption of spare parts allows a low cost of ownership.

# Superior Fabric Quality

## Quality

The Vamatex R880 is designed to produce a broad range of fabrics for home, sports and leisure wear styles. Natural or synthetic yarns, spun yarns or filament weave with perfect results on the R880. The reliable mechanical, electrical and electronic design guarantees a smooth operation with a very low stop level resulting in a high efficiency. Together with a perfect warp let off motion and smooth weft yarn path, excellent fabric quality is guaranteed. The new sley concept ensures higher and consistent beat-up force, thus increasing the capacity of the R880 to handling demanding styles or heavy-weight denim.

## Weft insertion

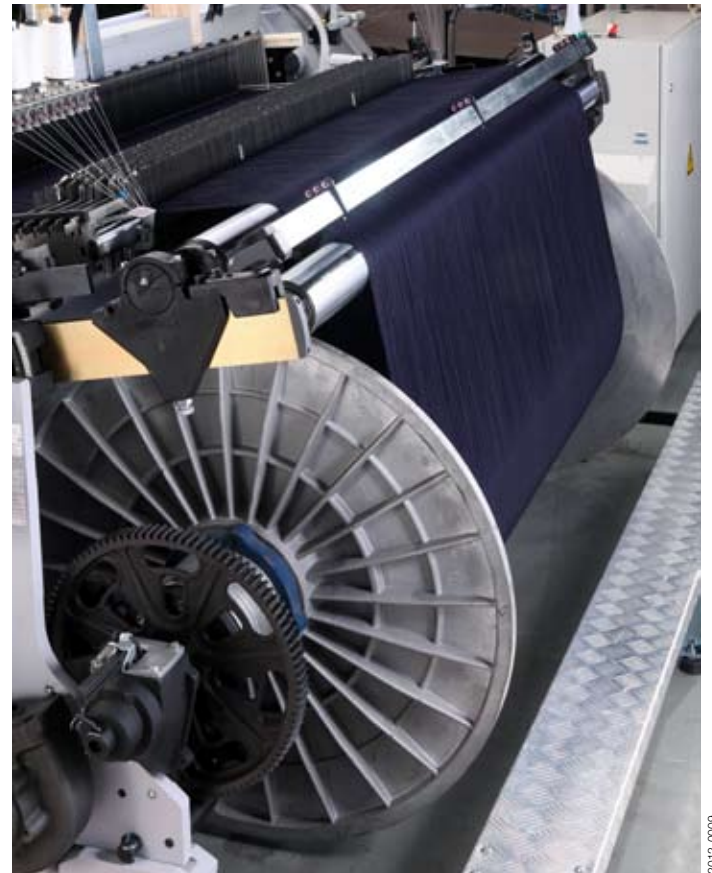
A straight weft insertion line combined with a low weft acceleration ensure a low stress on the weft yarn. This results in a low weft tension and hardly any yarn deflection. Thus, the yarn friendly handling by the Vamatex R880 guarantees a perfect operation at highest speeds and flawless fabric quality.

## Warp let off

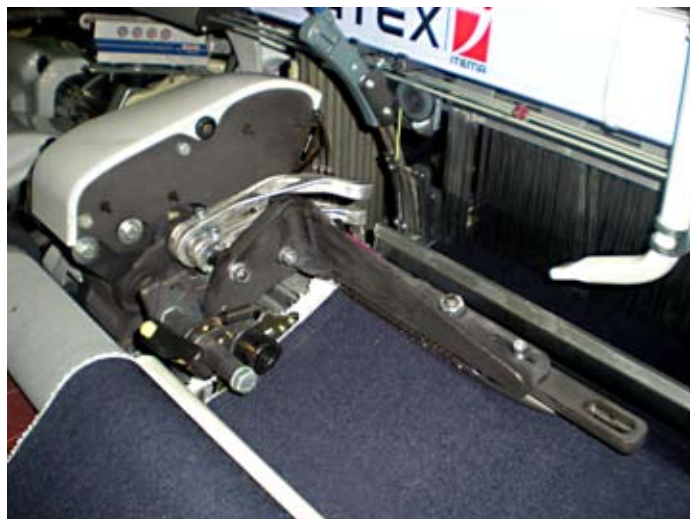
The electronically controlled warp let off is fully synchronized with the cloth take up thus providing a constant warp tension from full to empty warp beam. The Vamatex R880 weaving machine can be equipped with warp beams with flange diameters of 800 mm or 1000 mm. Weaving machines in narrow width (e.g. 190 or 230 cm) are equipped with single beam, wide machines (e.g. 340 cm) offer single or twin beam arrangements.

## Warp tension control

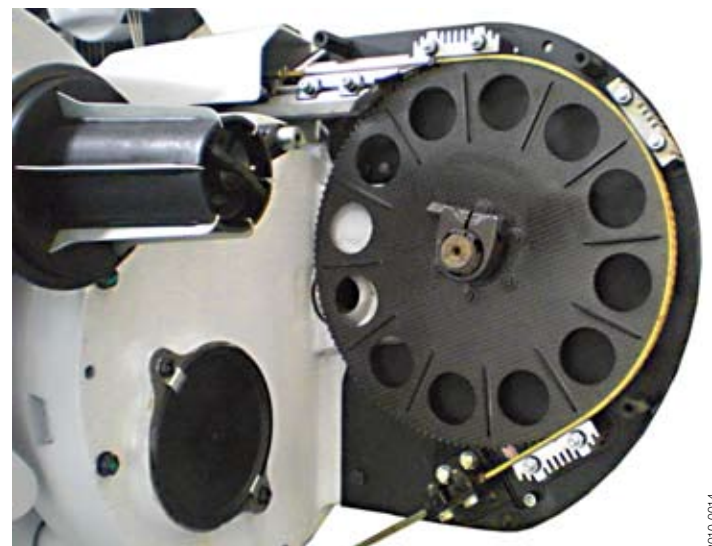
The warp tension is controlled by means of the back rest roller and a sensor. The software regulates the warp tension and drives the warp let off motor. A reinforced back rest roller system is available as option for heavy fabrics.



Stronger back roller for heavy fabrics.



Weft selector and cutters are easily accessible.



Increased tape lifetime with a new guiding system.

2010-0018

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2010-0014



## Flexibility

### Color selector

The 4 or 8 (12 on request) weft color selector is driven by independent and electronically controlled linear motors. It enables an optimum presentation of the weft yarn for transfer to the inserting rapier head. Weft patterns are easily programmed and stored in the weaving machine's microprocessor.

### Selvage formation

Depending on type of yarns, the finishing process and the end use of the woven product, the requirements for selvage formation may change. A wide choice of selvage options is given on the Vamatex R880:

- leno device
- tucking device
- thermal cut / fused selvage (filament fabrics)

### Keyboard/display & electronics

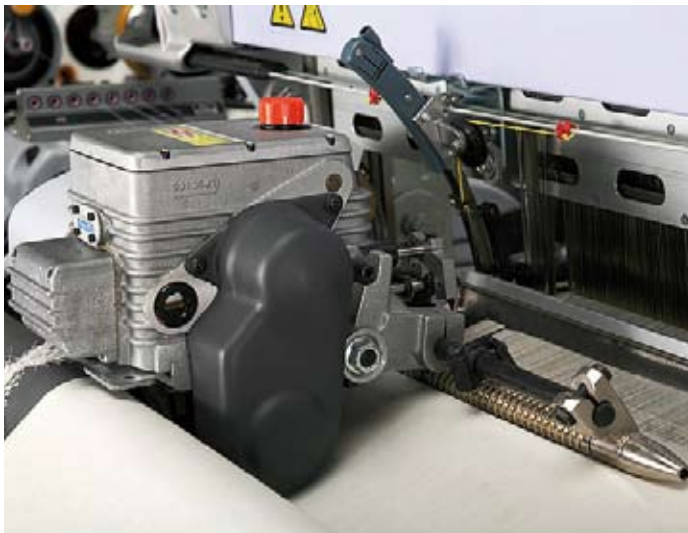
The user interface is state of the art, menu driven and with color graphics. The microprocessor concept allows to check all important weaving machine parameters and settings. The internal communication between the various machine functions is handled through CAN BUS. All safety standards are well respected on the Vamatex R880.



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# The Vamatex R880 at a Glance

## Nominal Machine Width (cm)

190, 210, 230 (narrow machine);  
260, 280, 340 (wide machine)

## Shedding

Staubli dobby 2658 (up to 20 frames)  
Arrangement for Electronic Jacquard

## Transfer System

EK: guided rapiers "monorail" type hooks

## Warp Beam

Single or twin beams  
Diameter 800, 1000 or 1100 mm  
Upper beam: 800 or 1000 mm

## Weft Insertion

Electronic weft selector: 4 or 8 (12 \*) colors

## Pick Density

Standard: 4 – 84 picks/cm  
1 – 20 and 8 - 150 picks/cm \*  
Automatic weft density variation programmable in dobby pattern

## Selvedge

Lateral and central independent leno device with one or two thread pairs  
Auxiliary selvedge formation by independent mechanism  
*Lateral and central tuckers \**  
*Selvedge thermo cut \**

## Warp Stop Motion

Electric or electronic warp stop motion with 6 or 8 rows

## Warp Let off

Electronic controlled let off

## Fabric Take up

Electronic controlled take up  
Cloth roller diameter: up to 500 mm  
*External batching motion \**

## Connectivity

Interface to standard data acquisition system

\* On Request

**R880 190 D 4 S08**

## Nominal Weaving Width in cm

190, 210, 230, 260, 280, 340

## Shedding

D Dobby  
J Jacquard

## Weft Colors

4, 8

## Beam Arrangement

S08	Single Beam 800
S10	Single Beam 1000
S11	Single Beam 1100
D08	Twin Beam 800
D10	Twin Beam 1000
D11	Twin Beam 1100
S8S	Top Beam 800
S1S	Top Beam 1000

## Dimensions (mm)

Weaving width	Machine width
1900 mm	4400 mm
2100 mm	4600 mm
2300 mm	4800 mm
2600 mm	5100 mm
2800 mm	5300 mm
3400 mm	5900 mm

## Overall Depth:

with 800 mm warp beam	1900 mm **
with 1000 mm warp beam	1965 mm **

\*\* foot boards excluded

# R880



ITEMA is a leading producer of weaving machines with operations in Italy, Switzerland and China. Our experienced team develops and manufactures state of the art weaving machinery. All our products are sold and serviced worldwide. Our brand names Sultex, Somet and Vamatex are well known to anybody in the textile industry.

The EDOSnet web based ordering system manages your spare parts in an efficient way for all generations and types of ITEMA weaving machines. With EDOSnet you are online around the clock with ITEMA's modern and computerized spare parts distribution center in Switzerland.

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Specifications subject to change without notice.