

# RFRL31

## RAPIER LOOM

The RFRL31 high speed rapier loom inherits the desirable features from our older RFRL30 weaving machine. Directly driven by the cutting-edge switched reluctance motor (SRM), our rapier loom not only uses 20% less energy than conventional ones under the same weaving conditions. It also delivers a higher power factor while yielding quality fabrics. It's definitely an advanced world-level weaving machine.

### Technical parameters

#### Reed width

Nominal reed width: 170cm, 190cm, 200cm, 220cm, 230cm, 240cm, 260cm, 290cm, 320cm, 340cm, 360cm, 380cm

Effective reed width: 0cm~80cm subtracted from the nominal reed with value

#### Weaving capacity

Cotton or man-made fiber: 500tex(1.2Ne)~5tex(120Ne)

Slub yarn or worsted yarn: 680tex(1.5Nm)~10tex(100Nm)

Filament: 10dtex (9Td)~1650dtex (1500Td)

Allowable fabric weight: 20~850g/m<sup>2</sup>

#### Weaving Speed

Rotational speed: 700r/min

Crafting speed: 450~650r/min

Maximum weft insertion rate: 1500m/min

Weft selector: 4~8colors (allowable colors of weft pick to be woven) Selector type: linear-motion motor or step motor type electronic weft selector



## Features

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### Energy Efficiency

The use of a switched reluctance motor eliminates the need for a transmission clutch and drive belt. The powerful, effective electronic switching system allows the motor to consume less energy, reduce the failure rate, and decrease maintenance cost.

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### Novel Transmission Mechanism for Shedding System

The warps are given shedding motion by the switched reluctance motor. Weft-finding motion is precisely controlled by the CPU and SRM. All these control features ensure reliable, stable functioning as well as reduces costs spent on shedding system maintenance.

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### Advanced SRM Electronic Switching System

The rapier loom rotational speed can be freely set on the operation interface where a wide range of speeds are available. Thanks to the electronic switching system, the loom can achieve rapid start-up, accurate braking to the designated position, step-less speed control, and automatic speed changing. Changing weaving speed according to the requirements of different creating processes can effectively reduce yarn breakage and set mark thereby making the loom suitable for various weaving applications.

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### Cutting Edge CPU

The CPU numeric control system utilizes the CAN-bus system to monitor and manage all the functioning modules therein. The big screen displays loom operating status in graphic form. The function keys set on the operating table allows ease of operation. Users can use the SD card to insert production program into the computer or use the RAM card to upload the production data to the internet.

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### State-of-the-Art Centralized Lubrication System

The double centralized lubrication systems are both controlled by the micro-computer. Where key parts on the loom need to be lubricated, the system will force the lubricating oil spray into them. Its high-precision oil pressure sensor can monitor and display the running condition of lubricating system, in an attempt to ensure the proper functioning of the loom.



Our divisions in Argentina, Brazil and Mexico are official RIFA representatives

Contact our official representatives for a customized quotation according to your company's needs.

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