



Richpeace[®]

Richpeace Stripe and Plaid Matching Cutting Machine



HD Projection



HD Industrial Camera



Model : RPPF-NM-PD+DKC-1-2500×1600-SGSF-P+CK-PP+AF-3P380



Model : RPPF-NM-PD+DKC-1-2500×1600-SGSF-P+CK-PP+AF+AR-3P3809 (with Receiving Table)



Vibrating Knife Drilling (pen drawing) Round Knife

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Characteristics

1. Richpeace Stripe and Plaid Matching Auto Cutter, equipped with Double Knives + Pen Draw (Punching) working mode, special for various stripes and plaids fabric cutting in single ply.
2. Equipped with a few HD industrial cameras, according to the capture size to perform intelligent combination, ensure the high accuracy fabric images capturing.
3. Import HD images to Richpeace stripe & plaid matching software CAD, intelligent adjust cutting pieces positioning, high accuracy alignment, easy and convenient.
4. HD definition project and simulate the plaids with real time nesting dynamic display, ensure the nesting is correctly without mistake.
5. Standard configuration with high-performance computer, 15 inches industrial monitor, high speed computation processor, improve production efficiency.
6. After nesting, then auto execute cutting. Double knives mode can meet the cutting process of knitted, woven and leather with alignment matched on stripe & plaid, and graphics pattern.
7. Optional with constant tension automatic feeding rack, to reduce knit fabric tension, effectively lower shrinkage rate of cutting pieces.
8. Optional receiving table, cutting and collecting finished cut pieces at the same time, further improve production efficiency.

Knives Function

Round Knife: Single ply knitted and woven fabrics (cutting the outer shape).

Vibration Knife: Single ply knitted and woven fabrics (for I/V/T shape liked cutting)

Punching Knife: Single ply knitted and woven fabrics (for U-shaped cutting)



Application

High-end clothing customization, the effect of the "alignment matched stripe and plaid" process has become the important measurement on the quality of this type of clothing. Richpeace stripe and plaid auto cutter is the equipment specially developed for this process to meet "matching stripe and plaid" clothing. Suitable for single ply cutting process of striped & plaided fabrics.



Model

Recommended Model (other sizes can be customized)	Maximum Cutting Area	Number of Camera	Number of Projector	Machine Area (L × W × H)
RPFP-NM-PD+DKC-1-1200×1600-SGSF-P+CK-PP+AF-3P380	1200mm × 1600mm	1	1	2500mm × 3000mm × 2800mm
RPFP-NM-PD+DKC-1-1200×1600-SGSF-P+CK-PP+AF+AR-3P380 (with Receiving Table)	1200mm × 1600mm	1	1	3800mm × 3000mm × 2800mm
RPFP-NM-PD+DKC-1-2500×1600-SGSF-P+CK-PP+AF-3P380	2500mm × 1600mm	2	2	4000mm × 3000mm × 2800mm
RPFP-NM-PD+DKC-1-2500×1600-SGSF-P+CK-PP+AF+AR-3P380 (with Receiving Table)	2500mm × 1600mm	2	2	6600mm × 3000mm × 2800mm
RPFP-NM-PD+DKC-1-3500×1600-SGSF-P+CK-PP+AF-3P380	3500mm × 1600mm	3	3	5000mm × 3000mm × 2800mm
RPFP-NM-PD+DKC-1-3500×1600-SGSF-P+CK-PP+AF+AR-3P380 (with Receiving Table)	3500mm × 1600mm	3	3	8600mm × 3000mm × 2800mm
RPFP-NM-PD+DKC-1-1200×1800-SGSF-P+CK-PP+AF-3P380	1200mm × 1800mm	1	1	2500mm × 3200mm × 2800mm
RPFP-NM-PD+DKC-1-1200×1800-SGSF-P+CK-PP+AF+AR-3P380 (with Receiving Table)	1200mm × 1800mm	1	1	3800mm × 3200mm × 2800mm
RPFP-NM-PD+DKC-1-2500×1800-SGSF-P+CK-PP+AF-3P380	2500mm × 1800mm	2	2	4000mm × 3200mm × 2800mm
RPFP-NM-PD+DKC-1-2500×1800-SGSF-P+CK-PP+AF+AR-3P380 (with Receiving Table)	2500mm × 1800mm	2	2	6600mm × 3200mm × 2800mm
RPFP-NM-PD+DKC-1-3500×1800-SGSF-P+CK-PP+AF-3P380	3500mm × 1800mm	3	3	5000mm × 3200mm × 2800mm
RPFP-NM-PD+DKC-1-3500×1800-SGSF-P+CK-PP+AF+AR-3P380 (with Receiving Table)	3500mm × 1800mm	3	3	8600mm × 3200mm × 2800mm

Machine Parameters

Cutting Method	Double knives and pen drawing (punching)
Drawing Method	Pen drawing
Pen Type	Sign pen, ball pen, oil-based pen
Continuous Cutting	Support
Cutting Speed	Straight line maximum 1000mm/s (actually depends on different materials)
Standard Round Knife Cutting Thickness	≤2mm (slightly different for different materials)
Standard Punching Knife Cutting Thickness	≤2mm (slightly different for different materials)
Optional Electric Vibration Knife Cutting Thickness	≤2mm (slightly different for different materials)
Optional Pneumatic Vibration Knife Cutting Thickness	≤8mm (slightly different for different materials)
Application Area	Clothing Industries
Applicable Cutting Materials	Round Knife: Single ply knitted and woven fabrics (cutting the outer shape). Vibration Knife: Single ply knitted and woven fabrics (for I/V/T shape liked cutting) Punching Knife: Single ply knitted and woven fabrics (for U-shaped cutting)
Fabric Fixing Method	Vacuum adsorption by sections
Control System	Richpeace control system + international brand servo motors
CAD Software	Richpeace stripe and plaid matching software CAD
Computer + Display	Windows 10 32G RAM, i7-CPU, discrete graphics card, 15-inch industrial display
Mechanical Resolution	±0.02mm
Camera	Industrial camera 20 million pixels (number of cameras will vary according to the selected model)
Projector	BENQ Resolution 1024 X 768 (number of projectors will vary according to the selected model)
Operating Voltage	Three-phase AC380V±10% (three-phase five-wire)
Air Pressure	0.6-0.8MPa
Working Temperature	0°C~40°C
Relative Humidity	Relative humidity is not more than 85% (at 25°C) without condensation
Total Power	5kW

Attention: No strong magnetic field or electric field interference in the working environment.

Machine Options



Constant tension feeding rack (optional)



Pneumatic vibration knife (optional)



Electric vibrating knife (optional)



Air pump (optional)

Machine Configuration

(The following configurations are for reference only, and the final configuration of the equipment would be subjected to the manufacturer's actual products.)



Standard high-performance computer: i7-CPU + 32G TAM + 12G discrete graphics card + 15-inch industrial monitor. High speed computation processor, highly improve efficiency.



HD industrial cameras, ensure the high accuracy fabric data images capturing.



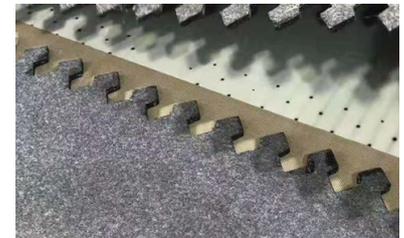
HD definition projector, process and simulate the plaids with real time nesting dynamic display.



Equipped with international brand servo device, ensure reliability running of equipment.



Aviation-grade aluminium alloy vacuum platform, using honeycomb principle, rigid and durable, surface with high accuracy.



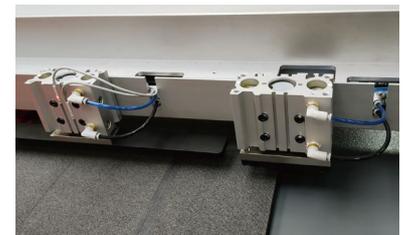
High quality cutting resistant table to ensure material adsorption firmly and precise cutting.



Safety protection device



Japan Bando high-precision timing belt + PMI linear guide rail, repeatability up to $\pm 0.05\text{mm}$.



SMC Pneumatic parts



LED parallel light source system, ensure industrial vision with all-weather condition and reliable operation.



NSK Bearing



Schneider Electric Switch