Cooperation · win · innovation · development

RAMBO

Beck Group
CIRCULAR KNITTING MACHINES

RAMBO

Quality wins the market
Quality creates brilliance

Beck GmbH

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English

ES | PT | DE | VN | TR | EN | CN

Textile industry automation solution service provider

## Corporate Vision

Our vision is to create an innovative and dynamic technology platform that gathers top global research forces, helps enterprises seize market opportunities, and leads fashion trends.

## Corporate Mission

Our mission is to become a technology leader and solution provider in the global textile industry, developing high-performance intelligent jacquard systems and automation solutions with independent intellectual property rights.

## Core values

We adhere to the core values of 'innovation as the soul, quality as the foundation, service as the heart, win-win for the world, and enterprising'

RAMBO Intelligent Technology Co., Ltd. in Foshan City drives industry development with innovation and creates brand value with excellent quality. Sincerely invite global textile colleagues to join us in this feast of technology and art, and work together to create a new era of intelligent, efficient, and green textiles. Choosing RAMBO means choosing a market competitiveness that is one step ahead, and choosing a stable and sustainable development partner. To jointly depict the brilliant future of the textile industry, let every inch of fabric carry the power of wisdom, and let every product shine with innovation!

# Company Profile

RAMBO Intelligent Technology Co., Ltd. was established in 2019 and is a technology-based enterprise specializing in the research, development, production, and sales of textile machinery automation products and textile software. Its headquarters and research and development base are located in Zhangcha Town, Foshan, a famous knitting town in China. RAMBO Intelligent Technology gathers top scientific research forces in the industry and strives to create a knitting circular machine jacquard system with independent intellectual property rights. The R&D team deeply understands market trends, accurately grasps customer needs, cleverly integrates cutting-edge technology with textile technology, and successfully develops a series of intelligent jacquard systems with high precision, high speed, and high stability.

Drive industry development with innovation and build brand value with excellent quality. Sincerely invite global textile colleagues to join us in this feast of technology and art, and work together to create a new era of intelligent, efficient, and green textiles. Choosing RAMBO means choosing a market competitiveness that is one step ahead, and choosing a stable and sustainable development partner. To jointly depict the brilliant future of the textile industry, let every inch of fabric carry the power of wisdom, and let every product shine with innovation!

## Patent Honor

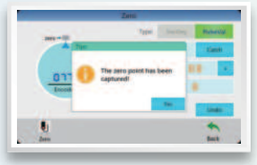
RAMBO has always been committed to in-depth exploration and research and development in the fields of intelligent hardware and software. With a keen insight into cutting-edge technologies and continuous R&D investment, RAMBO Technology has successfully overcome a series of technical challenges and achieved remarkable results. It has not only obtained multiple national invention patents, but also numerous copyright certifications in the software field. These achievements mark a solid step forward for RAMBO Technology on the path of technological innovation.

| trademark | patent | copyright |
| --- | --- | --- |
| 3 | 50+ | 10+ |

# High speed jacquard system

PATENT:CN202130352562.3

The system adopts the most advanced digital control technology, achieving precise control and diversification of knitted product pattern designed through the perfect combination of precision mechanical designed, advanced electronic technology, and intelligent software. At present, the system has been fully integrated into the RAMBO Cloud Internet Platform, with remote transmission of pattern functions, real-time collection of production data, and improvement of production management efficiency, providing assistance for enterprises to reduce costs and increase efficiency.

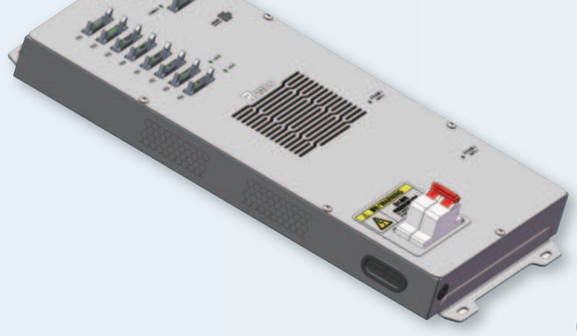


Intelligent Zero

Pattern continuation weaving

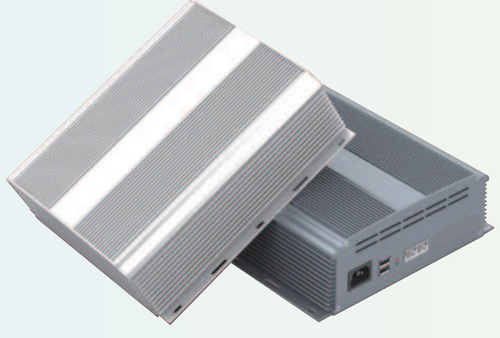
Automatic angle calculation

Multi language interface



# RAMBO pattern continuation module

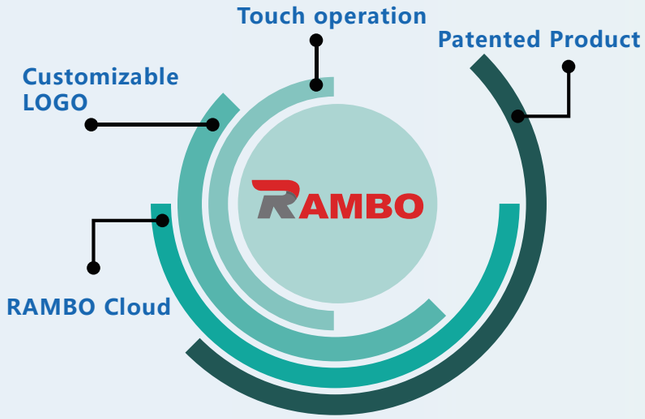
The continuity and stability of patterns in knitted jacquard systems are crucial for product quality in daily use. This product has a millisecond level response speed and can seamlessly switch to backup power mode in the event of a power outage, ensuring that the jacquard system is not affected and continues to operate normally. This helps to maintain the continuity of the pattern and avoid production interruptions and data loss caused by power fluctuations. Based on the voltage and capacity requirements of the jacquard system, we offer a variety of specifications of pattern continuation modules for customers to choose from, providing knitting enterprises with a more reliable and efficient pattern continuation guarantee solution.





# Circular machine control panel

PATENT:CN202030536308.4



## Product Features:

- High definition large screen, multi language switching
- Customizable startup screen to enhance corporate image
- Production data can be integrated with ERP systems
- Real time monitoring of machine production process
- Real time display of production task completion time
- Daily and monthly production statistics function
- Connect servo yarn feeding and fabric winding system
- Intelligent maintenance reminder function

Main screen

Production status

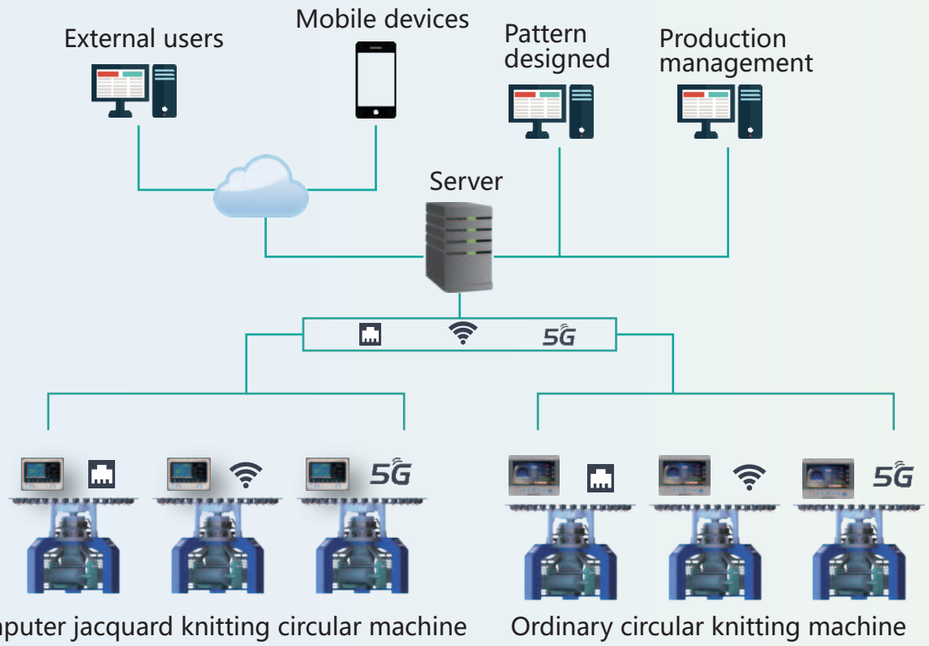
Employee data

Parameter

# RAMBO Cloud Interconnection System

**Data monitor** | **Remote transmission** | **Cloud computing**

**Visual display** | **Big data analysis** | **Security management**




Computer jacquard knitting circular machine　　Ordinary circular knitting machine

RAMBO Cloud Platform is an innovative IoT solution platform launched by RAMBO Technology, dedicated to providing efficient and reliable IoT application services for enterprises. The platform adopts advanced IoT technology and big data analysis methods to help enterprises achieve optimization and improvement in remote monitoring and management of equipment, data integration and analysis, predictive maintenance, intelligent control, and security management.

## Connected devices

**More devices are gradually being connected**



# RAMBO Cloud Interconnection Platform

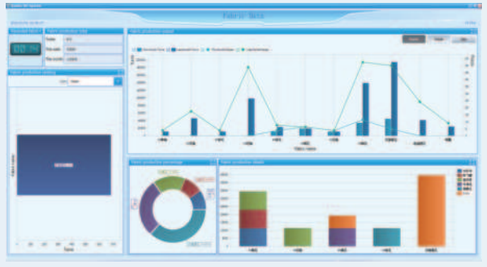
With the wave of Internet of Things sweeping across the globe, intelligent manufacturing has become the key to the transformation and upgrading of the textile industry. In this context, the RAMBO Knitting circular Machine Cloud Interconnection Platform has emerged, aiming to provide intelligent and networked production management solutions for knitting enterprises through real-time data collection, remote monitoring, intelligent analysis, and advanced cloud computing technology, helping enterprises improve production efficiency, reduce operating costs, enhance product quality and market competitiveness.

Real time monitoring of machine production status and collection of production data

Can better maintain equipment, extend its service life, and reduce maintenance costs

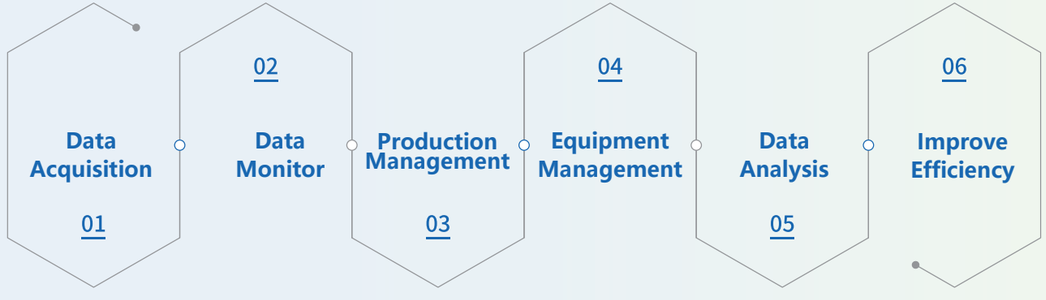
Real time presentation of production progress and product quality status on the production site

Automatically adjust production plans based on production needs to improve production efficiency



▲ Software main UI

▲ Production statistics UI

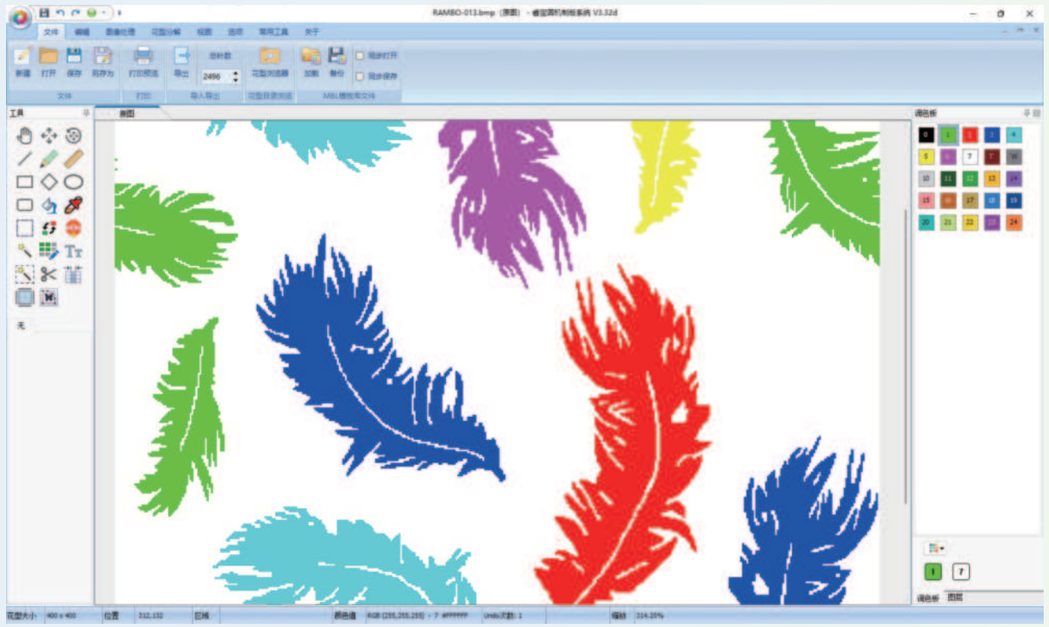


# RAMBO Pattern designed Software

RAMBO pattern designed software is a new circular mechanism version software independently developed and launched by the R&D team of RAMBO Technology, which fully absorbs the functional suggestions and daily usage habits of industry pattern process designers, as well as in-depth research on pattern processes. Based on excellent data architecture, users can easily designed and modify the pattern of the circular machine to achieve fast and accurate output of pattern process files.

## Software Features

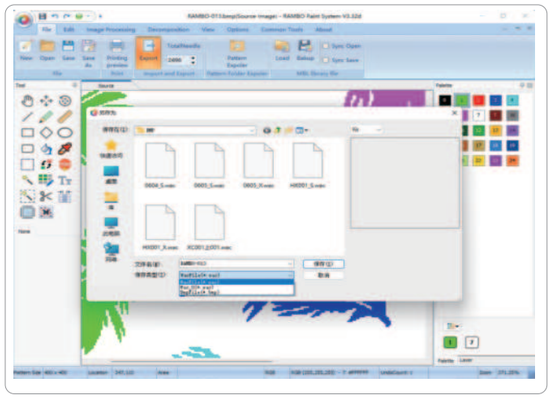
| Graphic drawing | Template filling | Decomposition | File format | Features |
|---|---|---|---|---|
| Custom shapes | Custom | Single sided | WAC format | Autosave |
| Color filling | Archive | Two-sided | BMP format | Reverse |
| Stroke editing | Global fill | Alignment | RMB format | Recover |
| Layer editing | Layer match | Multifunction | MD format | Selvedge |



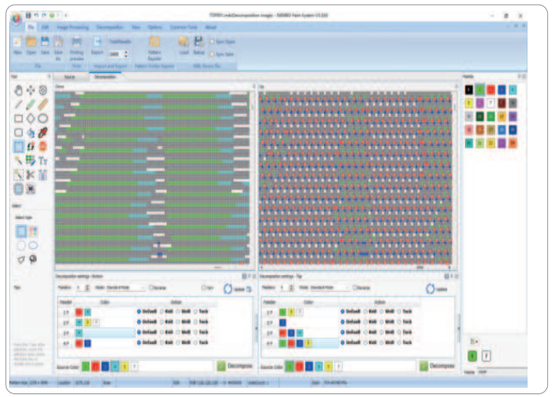
▲Software main interface display



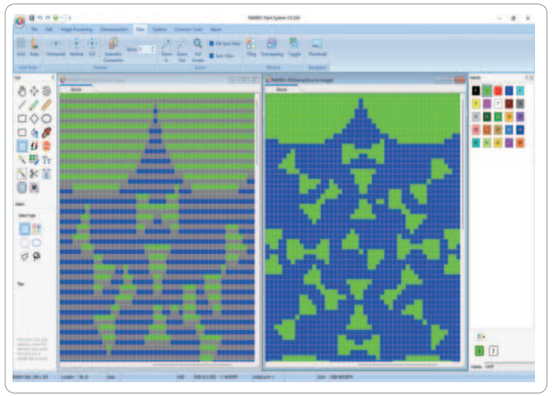
# Features of RAMBO Pattern designed Software



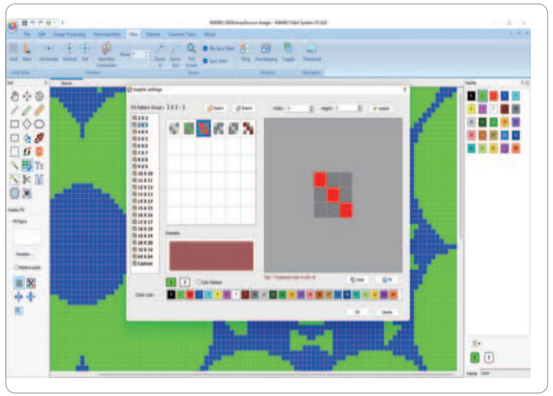
▲Export the WAC format



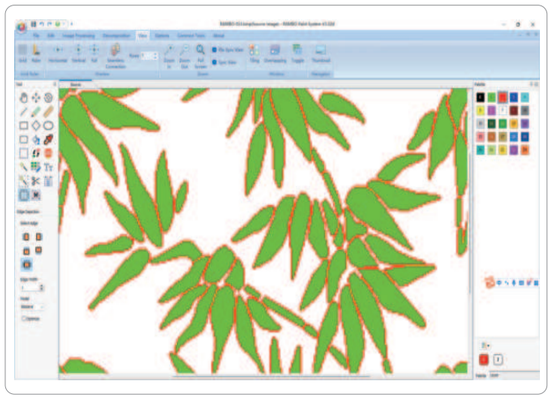
▲Top and Bottom jacquard decomposition



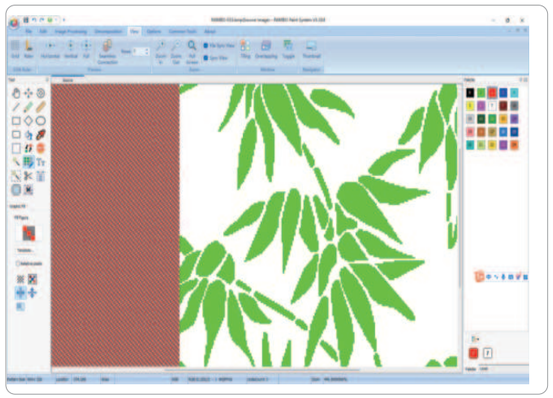
▲Decompose the Pattern and restore the original pattern



▲Template filling



▲Floral edge delineation

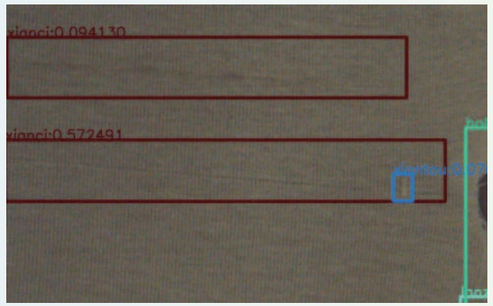


▲Quickly add fabric edge opening lines

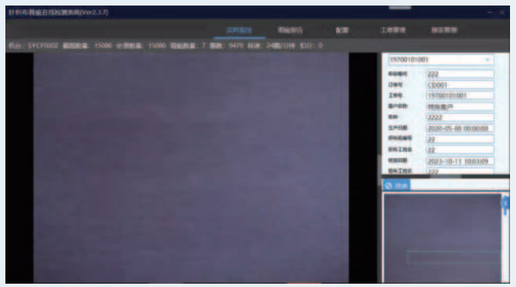
# Fabric detection system

The defect detection system is an automated equipment that uses machine vision technology and deep learning algorithms to inspect the quality of textiles. It can identify and classify various defects in textiles in real time and efficiently, such as broken needles, oil needles, horizontal stripes, oil stains, flying flower weaving, holes, etc. The system mainly consists of high-precision industrial cameras, LED light sources, high-performance processors, and advanced detection algorithm models. Through two stages of bright field detection and dark field detection, the defect detection system can capture images of textiles at high speed and use deep learning algorithms to analyze and process the images, accurately identifying defects. The defect detection system not only improves detection efficiency and accuracy, but also reduces labor intensity and labor costs, significantly improving production efficiency and product quality, and bringing significant economic benefits to enterprises.

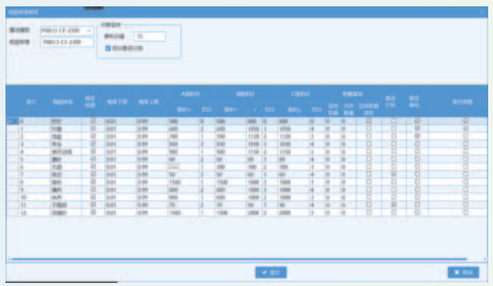
Fabric collection system



On-line monitoring system



Remote monitoring system



Data management system

## Characteristics of fabric identification system

**Real-time detection**

High efficiency
accuracy
Defects respond
in time

**Intelligent control**

Flexible setting
Adaptive algo-
rithm
intelligentize

**Information management**

Remote assis-
tance
Data analysis
Automatic

**Easy to operate**

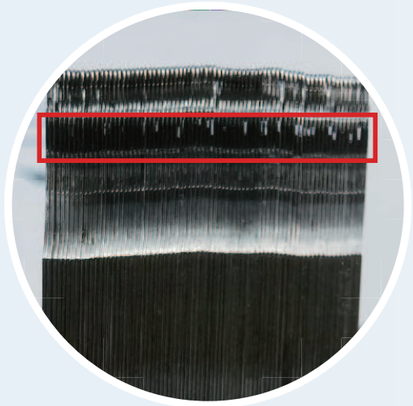
Simple operation
maintainable
Remote
monitoring



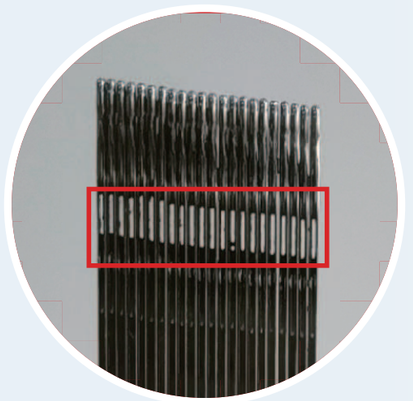
# Ultrasonic cleaning machine

RAMBO ultrasonic needle cleaning machine is an innovative cleaning equipment designed specifically for the textile industry, which can clean stains and impurities on needles without damage and efficiently. This device utilizes ultrasonic technology to generate a large number of tiny bubbles in the cleaning solution through high-frequency vibration. These bubbles form strong shock waves and micro flows during the expansion and rupture process, effectively removing stains and impurities on the surface of the knitting needles. The inner liner of the RAMBO ultrasonic needle cleaning machine is made of 304 stainless steel material, which has good corrosion resistance and durability, while the outer shell is made of high-quality plastic material, with a beautiful and elegant appearance. In addition, the device is equipped with an intelligent control system that can accurately control the cleaning time and power, ensuring that each cleaning can achieve the best results. Whether it's oil stains, rust, fibers, or other difficult to remove impurities, it can easily handle them, designed the knitting needles look brand new.

**Before cleaning**



**After cleaning**



# Servo yarn feeding system

The RAMBO knitting circular machine servo yarn feeding system is an efficient, high-precision, and easy-to-use intelligent yarn feeding device designed specifically for knitting circular machines, which can significantly improve production efficiency and product quality. The system adopts advanced servo motor technology to ensure stability and consistency during the knitting process by precisely controlling the yarn conveying speed and tension. Its intelligent control system can monitor and adjust yarn feeding parameters in real time to adapt to different knitting needs and process requirements. In addition, the system also has high reliability and durability, and can maintain stable performance during long-term continuous operation. Provide excellent yarn delivery effect, designed the fabric surface smoother, finer, and more beautiful.

## Advantage

RAMBO Technology servo yarn feeding system stands out in the knitting industry with its excellent technical performance and innovative designed

| 01 | 02 | 03 | 04 | 05 |
|---|---|---|---|---|
| **High efficiency** | **Intelligent** | **Durable** | **Simple operation** | **Improve quality** |
| Adopting high-performance servo motor drive to improve production efficiency | Real time monitoring of yarn delivery status and automatic adjustment of parameters | Long term stable operation, reducing maintenance and replacement costs | Humanized settings, simple and quick operations | Accurately adjust the yarn feeding speed and tension to ensure even tension during the weaving process |



# Yarn length monitoring device

## Product Introduction

RAMBO yarn length monitoring device is an efficient and accurate yarn length monitoring equipment designed specifically for the textile industry. This product is made of high-quality materials, with good durability and stability, and can operate stably for a long time in harsh industrial environments. It uses advanced sensor technology to monitor the length changes of the yarn in real time, and can automatically identify and record abnormal situations, issue alarms in a timely manner, and help operators quickly take measures to avoid the occurrence of defective fabric. In addition, the monitor also has a user-friendly interface that is concise, easy to use, and convenient for users to set parameters and view monitoring data. It also supports multiple communication protocols and can be seamlessly integrated with other textile equipment through the RAMBO cloud platform.

## Product Features

**Real time monitoring**

It can monitor the yarn length in real time, and even issue an alarm signal and trigger a parking mechanism when the yarn length exceeds the set range, effectively preventing the production of unqualified products.

**High detection accuracy**

The detection accuracy can reach 0.01cm, far higher than the accuracy of traditional manual measurement. This high-precision detection capability ensures the accuracy and consistency of yarn length.

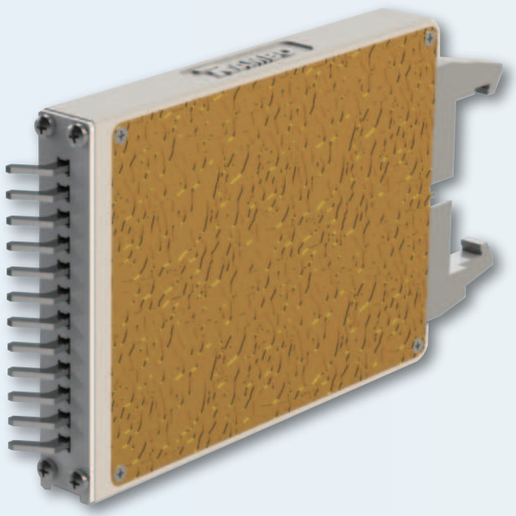
**Improve product quality**

Automatic measurement and monitoring of yarn length have significantly improved the product quality of knitted fabrics. By precisely controlling the yarn length, the consistency and quality stability of the fabric can be ensured, reducing the occurrence of defective products caused by uneven yarn length.

**Accessing the RAMBO Cloud Platform**

After connecting to the RAMBO Cloud platform, real-time monitoring and data analysis can be achieved, production transparency and traceability can be enhanced, and produc-

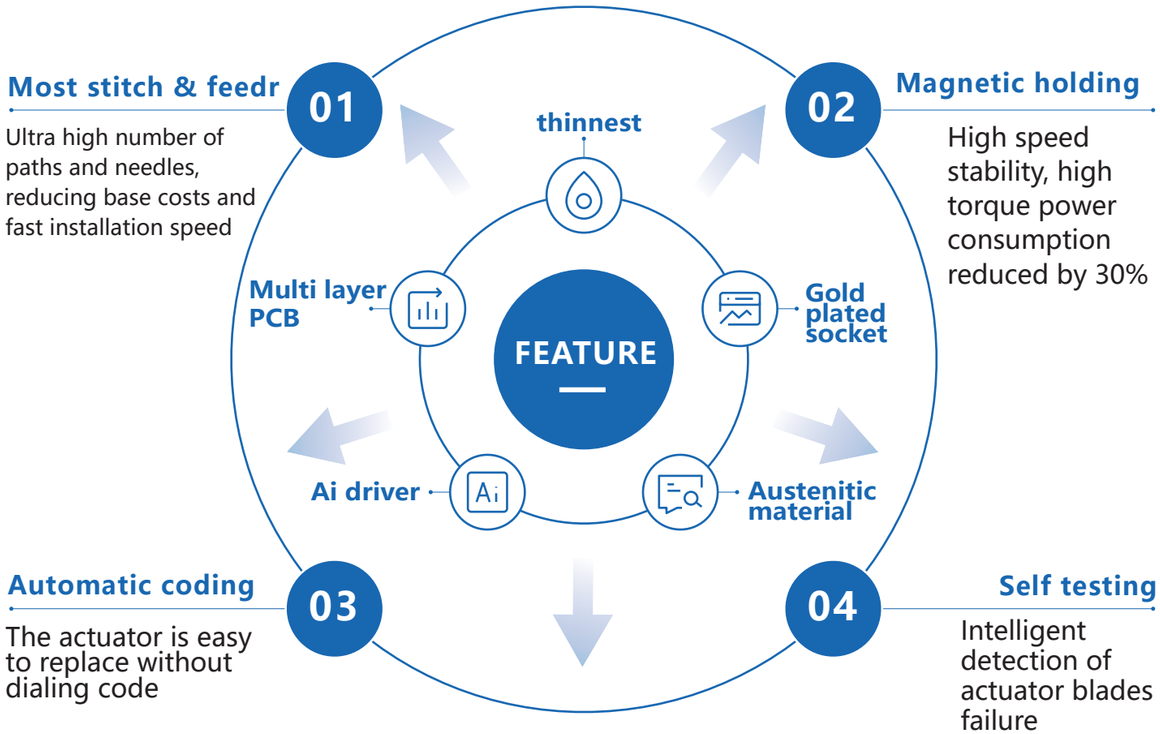
## 10mm magnetic holding actuator



PATENT: CN202121314816.3

This actuator adopts advanced magnetic holding materials and patented structural designed, achieving an ultra-thin thickness of only 10mm, greatly saving installation space, greatly improving the number of routes and output of knitting jacquard circular knitting machines. It also has high durability and reliability, and can maintain stable performance during long-term continuous operation. With its ultra-thin designed, excellent performance, and ease of use, it has set a new benchmark in the knitting industry. For both knitting machine manufacturers and knitting enterprises, this actuator is the preferred solution to improve production efficiency and product quality.

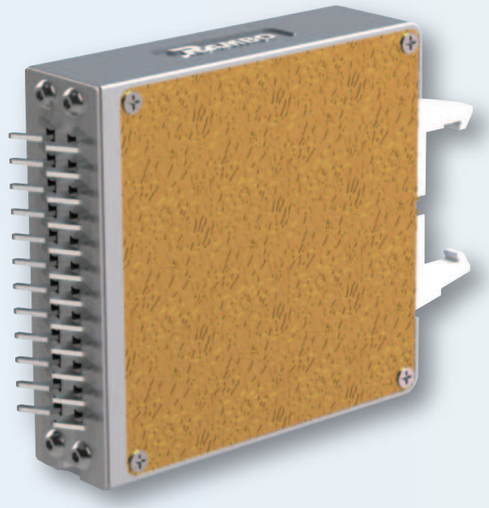
**Thickness is only 10mm**

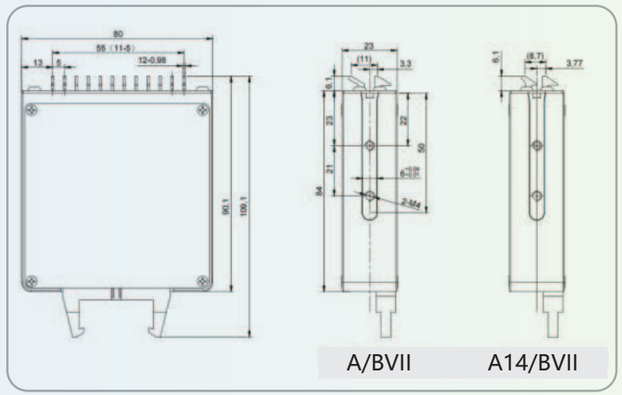




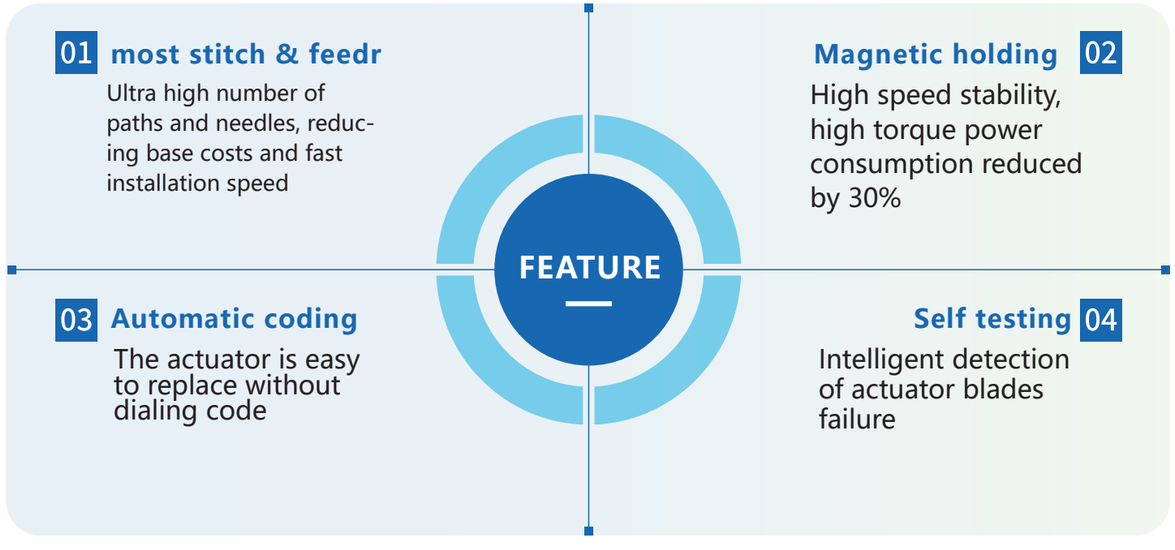

## Parallel 24 blades actuator

PATENT: CN201922293779.1

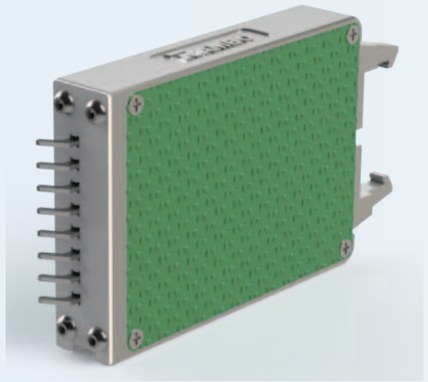




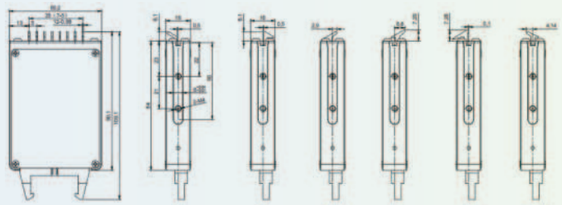

The actuator adopts a unique parallel and parallel designed, realizing that the two rows of cutting heads of the actuator are on the same horizontal plane, reducing the types of jacquard pieces, greatly reducing the volume of the actuator, and improving the number of paths of the large circular machine. Its advanced magnetic materials and patented structural designed ensure fast, accurate, and stable needle selection action. Whether it is high-speed operation or complex pattern weaving, the parallel double row 24 blades magnetic holding actuator can easily handle it, improving the product and increasing the efficiency of your knitting jacquard circular machine.



## H-series 8 blades magnetic holding actuator

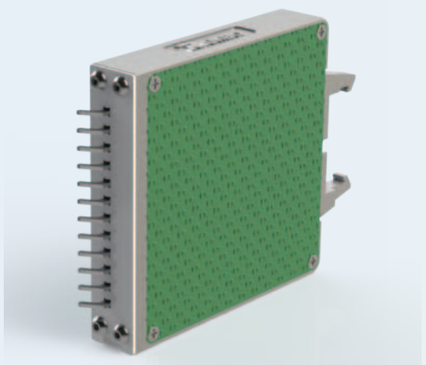


DIMENSION




| Actuator parameters | | | | |
|---|---|---|---|---|
| voltage | frequency | temperature | interval | Needle pitch |
| DC24V | 100Hz | -25℃-75℃ | 5mm | ≤28G |

## H-series 12 blades magnetic holding actuator



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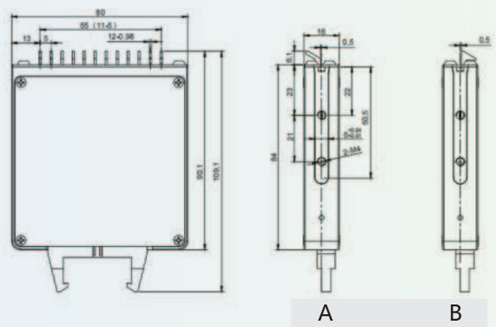
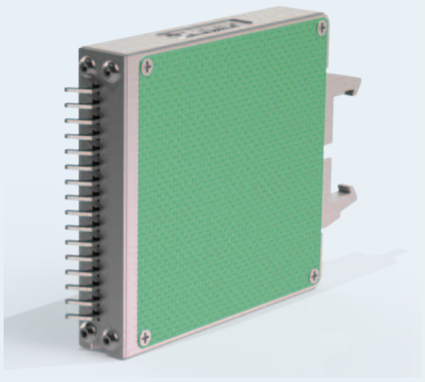


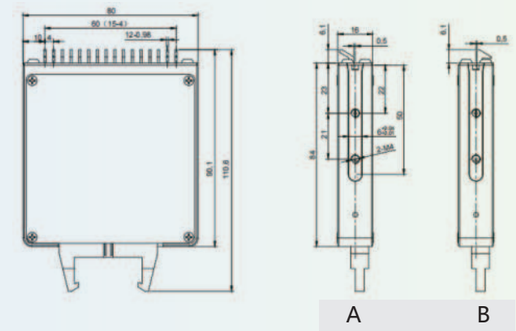

| Actuator parameters | | | | |
|---|---|---|---|---|
| voltage | frequency | temperature | interval | Needle pitch |
| DC24V | 100Hz | -25℃-75℃ | 5mm | ≤36G |



## H-series 16 blades magnetic holding actuator

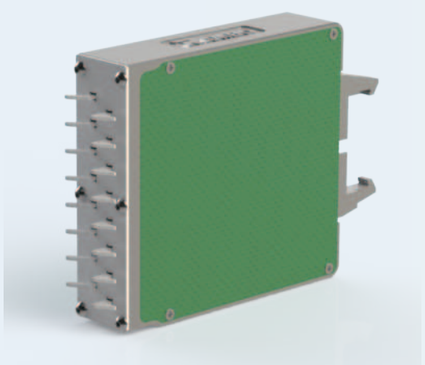


DIMENSION

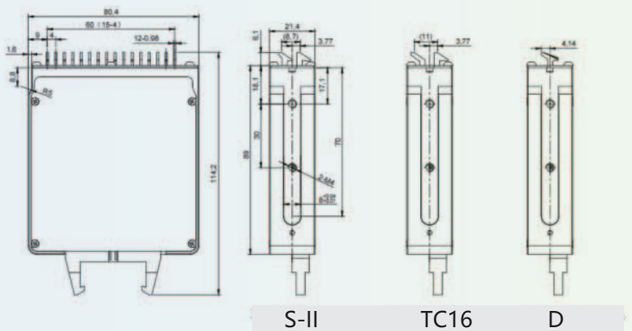



| Actuator parameters | | | | |
|---|---|---|---|---|
| voltage | frequency | temperature | interval | Needle pitch |
| DC24V | 100Hz | -25℃-75℃ | 5mm | ≤50G |

## TC-series 16 blades magnetic holding actuator

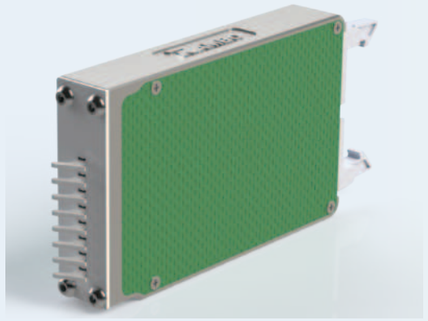


DIMENSION

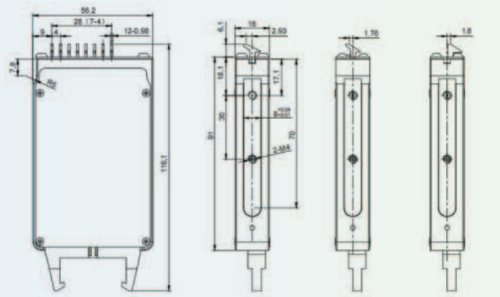



| Actuator parameters | | | | |
|---|---|---|---|---|
| voltage | frequency | temperature | interval | Needle pitch |
| DC24V | 100Hz | -25℃-75℃ | 4mm | ≤28G |

## TC-series 8 blades magnetic holding actuator

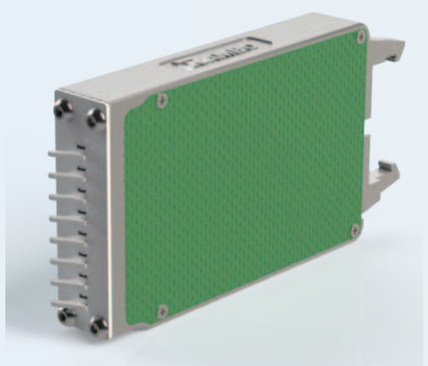


DIMENSION

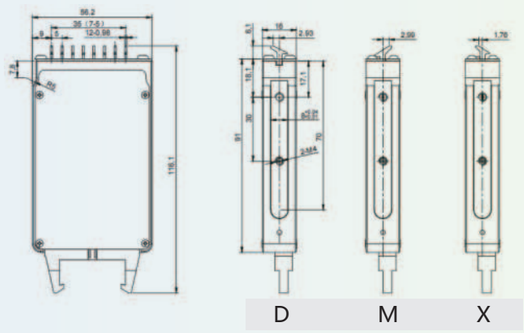



| Actuator parameters | | | | |
|---|---|---|---|---|
| voltage | frequency | temperature | interval | Needle pitch |
| DC24V | 100Hz | -25℃-75℃ | 4mm | ≤28G |

## TC-series 8 blades magnetic holding actuator



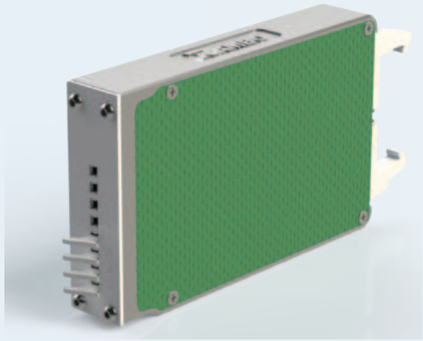
DIMENSION



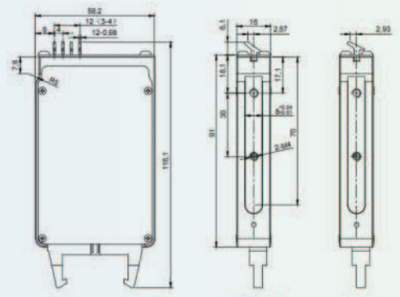

| Actuator parameters | | | | |
|---|---|---|---|---|
| voltage | frequency | temperature | interval | Needle pitch |
| DC24V | 100Hz | -25℃-75℃ | 5mm | ≤28G |



## 4-6 color Yarn actuator

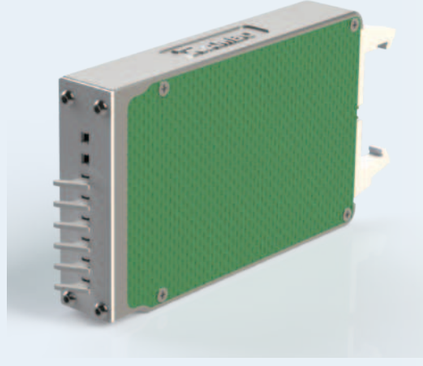


DIMENSION

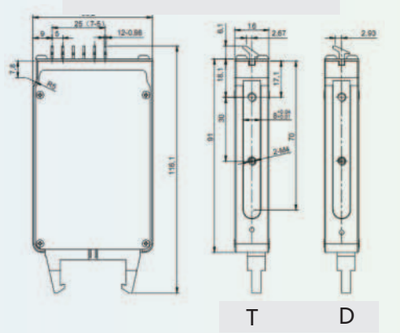



| Actuator parameters | | | | |
|---|---|---|---|---|
| voltage | frequency | temperature | interval | Machine type |
| DC24V | 100Hz | -25℃-75℃ | 4mm | 4-6 tonal lines |

## 4-6 color Yarn actuator

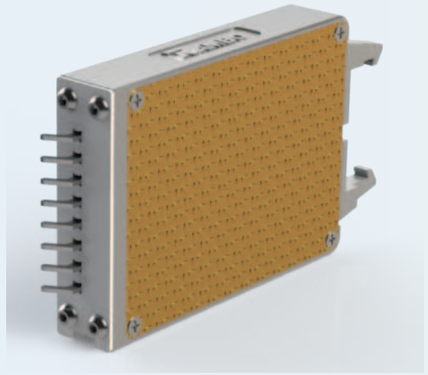


DIMENSION

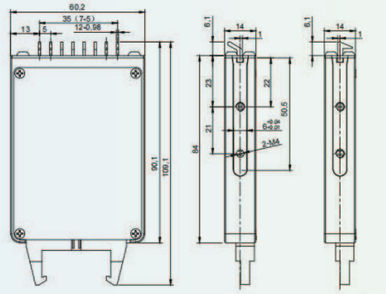



| Actuator parameters | | | | |
|---|---|---|---|---|
| voltage | frequency | temperature | interval | Machine type |
| DC24V | 100Hz | -25℃-75℃ | 5mm | 4-6 tonal lines |

## TA-series 8 blades magnetic holding actuator



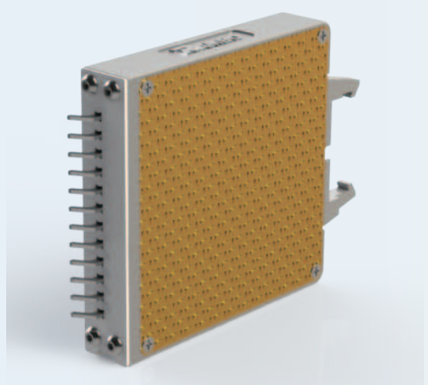
DIMENSION



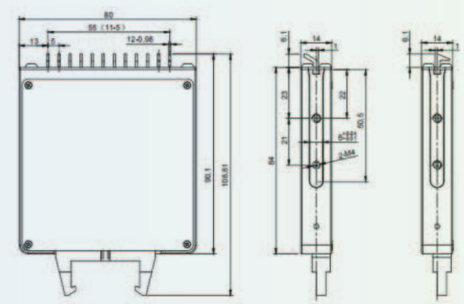
AIV BIV

| Actuator parameters | | | | |
|---|---|---|---|---|
| voltage | frequency | temperature | interval | Needle pitch |
| DC24V | 100Hz | -25℃-75℃ | 5mm | ≤28G |

## TA-series 16 blades magnetic holding actuator



DIMENSION

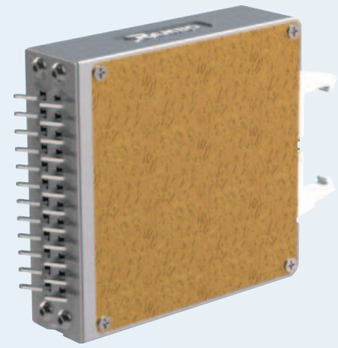


A B

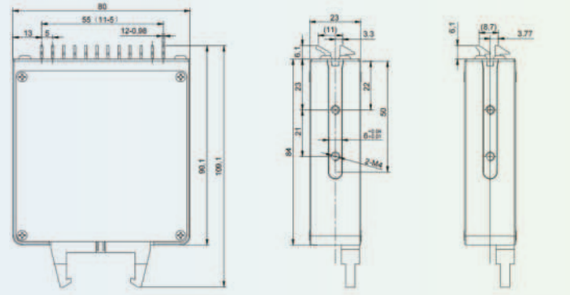
| Actuator parameters | | | | |
|---|---|---|---|---|
| voltage | frequency | temperature | interval | Needle pitch |
| DC24V | 100Hz | -25℃-75℃ | 5mm | ≤36G |



## TA-series 24 blades magnetic holding actuator



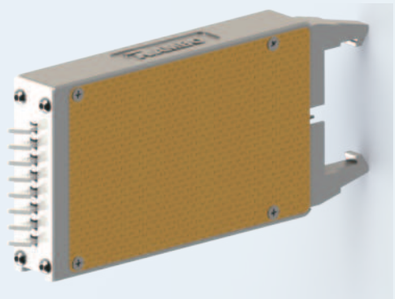
DIMENSION



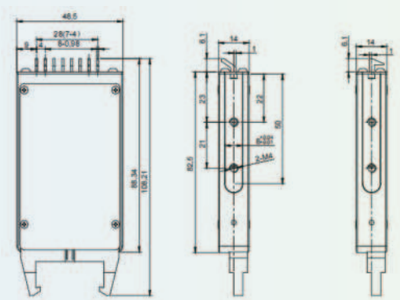
A/BVII A14/BVII

| Actuator parameters | | | | |
|---|---|---|---|---|
| voltage | frequency | temperature | interval | Needle pitch |
| DC24V | 100Hz | -25℃-75℃ | 5mm | ≤36G |

## TS-series 8 blades magnetic holding actuator



DIMENSION



A B

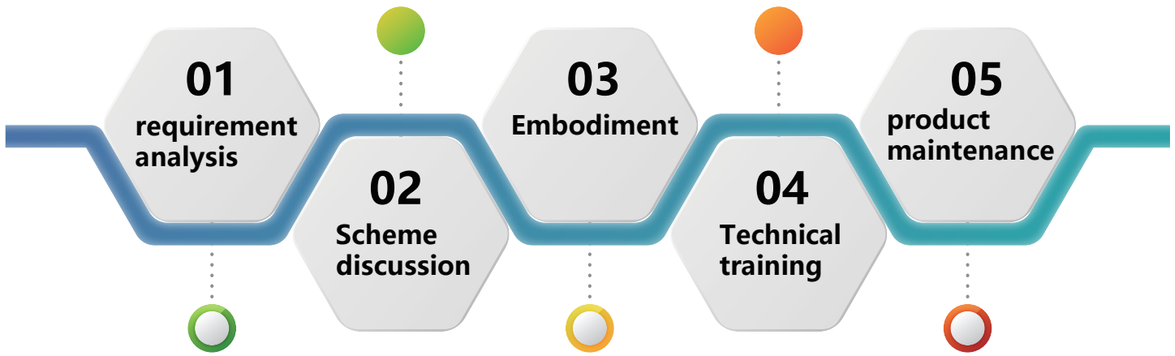
| Actuator parameters | | | | |
|---|---|---|---|---|
| voltage | frequency | temperature | interval | Needle pitch |
| DC24V | 100Hz | -25℃-75℃ | 4mm | ≤28G |

## Product customization and development

As a professional service provider of automation solutions in the textile industry, RAMBO Company has always been committed to providing customers with stable, efficient and stable automation solutions. Our products and services are renowned in the industry and have gained recognition and trust from numerous customers.

In terms of product customization, we are well aware that each customer's needs are unique, so we always adhere to customer-centric approach, deeply understand their production processes, pain points, and expected goals. Through close communication with customers, we are able to accurately grasp their needs and provide tailored automation solutions for them. We strive for excellence in equipment selection, system designed, and installation and debugging to ensure the practicality and effectiveness of our solutions.

In terms of research and development, we have a professional R&D team with a deep technical background and rich industry experience. They constantly explore new technologies and processes, committed to developing more efficient, stable, and intelligent automation products. We focus on technological innovation and product upgrades, constantly launching new products that meet market demands and meet the growing needs of our customers. At the same time, we actively cooperate with external resources such as universities and research institutions to jointly promote the continuous progress of automation technology in the textile industry.




### Core technology

The company's core technology system is centered around intelligence and efficiency, committed to providing comprehensive, precise, and efficient automation solutions for textile enterprises

### Intelligent solution

We have a professional R&D team with profound technical background and industry experience, which can bring you the most cutting-edge automation technology and products

### RAMBO Cloud

All products can be connected to the RAMBO Cloud platform, providing enterprises with intelligent and networked production management solutions



## After-sale service

In today's fiercely competitive technology market, high-quality products are the foundation for enterprises to establish themselves, while excellent after-sales service is an important guarantee for brand reputation. RAMBO Technology is well aware of this, so we are committed to providing unparalleled after-sales service experience, ensuring that every customer can enjoy true 'worry free after-sales'.

### Quick response mechanism

We understand the importance of time for every customer. Therefore, RAMBO Technology has established a 24/7 customer support center. Whenever and wherever you need help, our professional team will provide you with a response as soon as possible. Through various channels such as phone and WeChat, we ensure that every question you have can be quickly answered.

### Professional maintenance services

For any technical malfunction, RAMBO Technology provides comprehensive repair services. Our technical support team is composed of experienced engineers who have received rigorous professional training and are able to accurately diagnose problems and provide effective solutions. Whether it's hardware replacement or software upgrade, we can ensure that the equipment is put back into use in its best condition.

### User training and support

We believe that the best after-sales service is not just about solving problems, but also about educating and empowering customers. Therefore, RAMBO Technology provides detailed user training courses to help you better understand and use our products.

## Europe Service Centers

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