

## 山东日发纺织机械有限公司

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**Loom system**  
Air jet terry loom 织造系统 / 喷气毛巾织机

本样本仅供参考，不作为技术验收的依据。  
为提高产品质量，本公司保留更改规格之权力，恕不另行通知。  
This brochure is only for your reference, not for any basis of checking and acceptance.  
To keep up with advancement technology, we reserve the right to change the specifications without prior notice.



山东日发纺织机械有限公司是由浙江日发纺织机械有限公司控股、聊城市昌润投资发展有限责任公司和部分员工共同出资组建的具有独立法人的有限责任公司。公司拥有自营进出口权,通过了ISO9001:2000 质量管理体系认证,是“国家高新技术企业”。企业技术中心为“山东省剑杆织机工程技术研究中心”。

山东日发致力于研发、制造具有国际水准的各类无梭织机,主要产品为系列剑杆织机、毛巾织机、喷气织机、喷气毛巾织机、喷水织机。公司是有近二十年专业生产高档无梭织机的历史,已有几万台织机销往欧洲、亚洲、非洲等十几个国家及全国20多个省市区。目前织机可适于各种纤维,如棉、毛、丝、麻、以及特种纱;涉及多个领域,如毛巾、棉、毛、丝的时装面料和家纺装饰布、工业用布等,多数填补了国内织造行业的空白。

公司以成为“敏捷化的国际性公司”为愿景,以“在机电产品制造领域向客户提供工业加工过程的单台设备、工段、车间、组合生产线,协助客户实现数字化工厂梦想”为使命,致力于创造崭新的“数字科技”理念,在未来的整机生产中,建立“人流、物流、信息流”的互动平台,实现科技、环境、制造的和谐统一。铸就“信息化、敏捷化、国际化”的机械制造生产基地而坦然前行。



Shandong Rifa Textile Machinery Co., Ltd is controlled and founded by Zhejiang Rifa Textile Machinery Co., Ltd, Liaocheng Changrun Investment Development Co., Ltd. as well as some managerial persons and staff. The company has got ISO9001:2000 Quality System Certificate; it is Shandong Province High-technology Enterprise and Investigation & Research Center, also is Shandong Province Rapier Loom Engineering Technology Investigation Center.

Shandong Rifa is the main base of shuttleless loom manufacture and investigation; the company is devoting herself into manufacturing all kinds of shuttleless looms with the leading main products of air jet looms, rapier looms, terry looms of rapier and air jet, water jet looms. The company is one of the earliest manufacturers for rapier looms in China, has more than 20-year professional experience of manufacturing rapier looms, more than thirty thousand looms were sold in Europe, Asia, Africa, etc. At present the machines we manufacture includes cotton loom, worsted loom, slub wool loom, linen loom, ramie loom, jute loom, denim loom, silk loom, terry loom, jacquard loom, label loom, wide width upholster fabric loom, industrial & percolation fabric loom, special net fabric loom, etc.

"Become a quick response international enterprise" is our target, and supply to the customers with single equipment, workshop section, workshop, combined product line in the area of machinery-electronic industry, assisting our customers realize their dreams of digital factory which is also the mission of RIFA. Shandong Rifa Textile Machinery Co., Ltd. devoting itself to create a whole new theory of digital technology, establishing the interactive platform for people flow, material flow and information flow, realizing harmony & unify for science and technology, environment and manufacturing.







## RFJA33 型喷气毛巾织机

RFJA33 AIR JET TERRY LOOM

RFJA33系列喷气毛巾织机秉承日发纺机RFJA系列喷气织机的技术，以节能、低耗、高速、高效与广泛的品种适应性为设计理念而开发的一款高速喷气毛巾织机。

该机通过全新立体设计和计算机解析组合，并利用虚拟样机技术设计了引纬、开口、打纬和起圈机构，填补了国内喷气毛巾织机的空缺，同时在高速适应性与品种适应性上表现优异，是目前市场上性能比最优秀的产品之一。

- >> 优越的高速性能
- >> 广泛的产品适应性
- >> 良好的可操作性
- >> 可靠的品质保障
- >> 优良的环境保护措施



RFJA33 air jet terry looms succeed the technology of RFJA series air jet looms, is a model of high speed air jet terry looms with the design concept of high speed, lower consumption and wide weaving range.

This model looms are designed through completely new three-dimension technology, computer analysis & assembly, and utilized the virtual technology in designing of the insertion, shedding, beating and looping. It filled the blank of air jet terry looms in China. With the perfect performance of high speed and wide weavability, it becomes one of the best towel weaving machines in the world

- >> High speed
- >> Wide weavability
- >> Easy operating
- >> Reliable quality
- >> Perfect environmental protection

### 【高速高效】

“RFJA33”机架构造刚度、韧度优化加强，引纬、打纬更加稳定，使高速性能表现卓越。

### 【High speed & high efficiency】

Rigidity & tenacity of machine frame has been strengthened, insertion and beating is more stable, which can ensure a perfect performance with high speed.

### 【操作简便】

“RFJA33”充分考虑人机工程，力求操作舒适简便，降低经位置线，提高操作工的舒适度，通过高清彩色触摸屏的人机对话界面，基本实现全部设定的简便化，发挥出卓越的操作性能。

### 【Easy operation】

Fully considering man-machine engineering on RFJA33 looms to make the operating comfortable and simple. Lower position of warp ends also can comfort the operators. Through i-board high definition touching screen, all the data can be set easily.

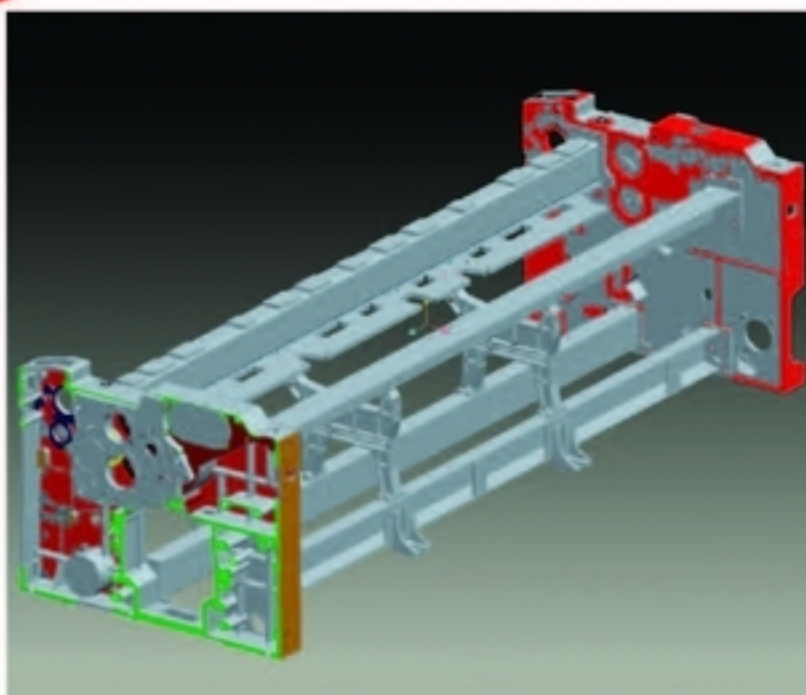
### 【品质保障】

“RFJA33”强化关键零部件，优选供应商，保证整机品质，并具有完善的全方位的售前、售中和售后服务体系。

### 【Reliable quality】

All the important parts get strengthened, select the best suppliers to ensure the best quality; and offer perfect service of per-sale, in sale and after-sale.



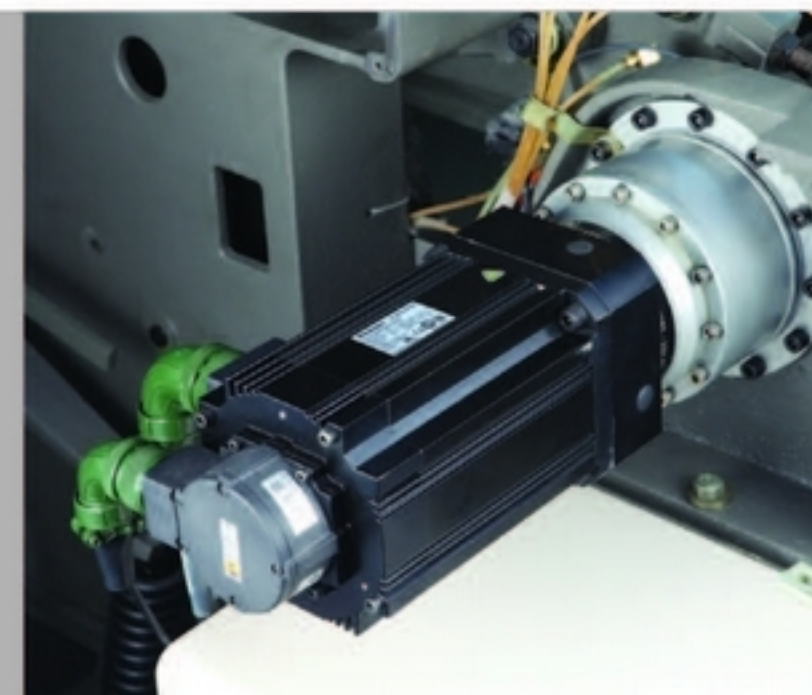


#### 【坚固的机架·超高的转速】

采用强韧的两侧箱型端板和扎实的横梁组合成坚固的机架，并增加了机架中间支撑，抗振性和可靠性好，确保了织机超高速化、宽幅化和低噪音。

#### 【Solid frame·super-high speed】

Adopts strong box-wall boards on both sides, and the middle support also has been strengthened, the anti-vibration and reliability is perfect to ensure the performance of high speed, wide width and low sounds.

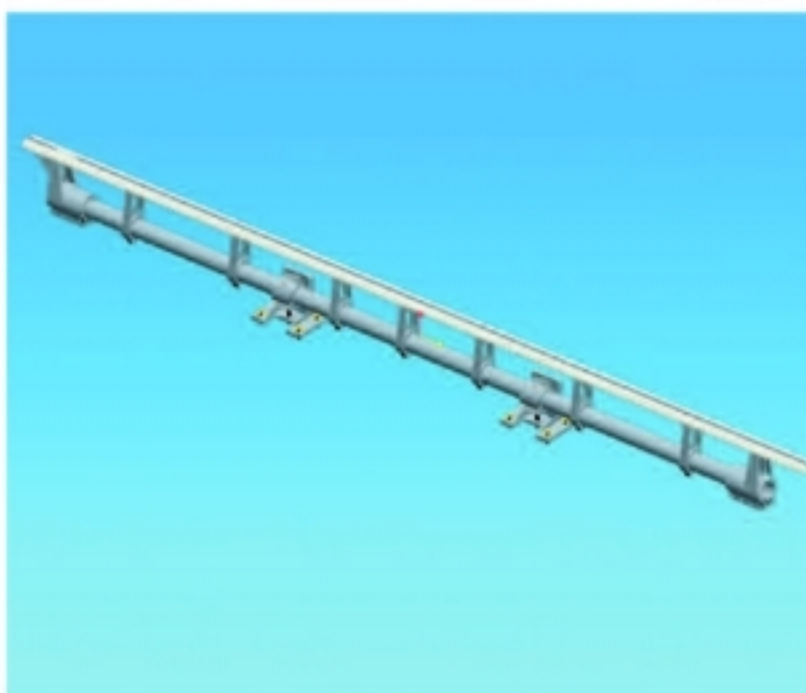


#### 【起圈装置】

伺服式电机精确控制起圈、调节方便并提高了毛圈的品质，可以非常容易地织造出不同长短毛圈和凹凸毛圈、波浪毛等多样组织的织物。可实现3-7纬自动控制起毛及转换等功能，大幅度提高了毛巾图案设计的灵活性。可在显示屏上简单变更毛圈长度并切换毛圈形成周期，使式样的变换更为简便。

#### 【Terry motion】

Looping is controlled accurately by servo motor which can improve the terry quality, and it is easy to weave different length loops, concave-convex loops, wavy loops and so on. 3-7 picks at will; this can ensure weavability of various towels. Through parameter settings on screen it is easy to change loop length and terry formation cycle.



#### 【摇轴中间支撑装置】

摇轴采用实心轴带中支撑的装置，提高了打纬机构的刚性，在高速运转中准确有力的打纬是织造高密度织物的保证。

#### 【Middle support of sley shaft】

Adopts solid sley shaft with middle support, rigidity of beating is improved; high quality beating motion ensures to weave high density fabrics.



#### 【计算机控制系统】

配有人机界面键盘，可以将织机运转状态、故障原因、织造工艺参数及织机设定条件等信息显示在显示屏中。通过功能键方便的输入各种数据，还可通过记忆卡将各种设定参数长期保存或随时输入到其织机中。

#### 【人性化的界面】

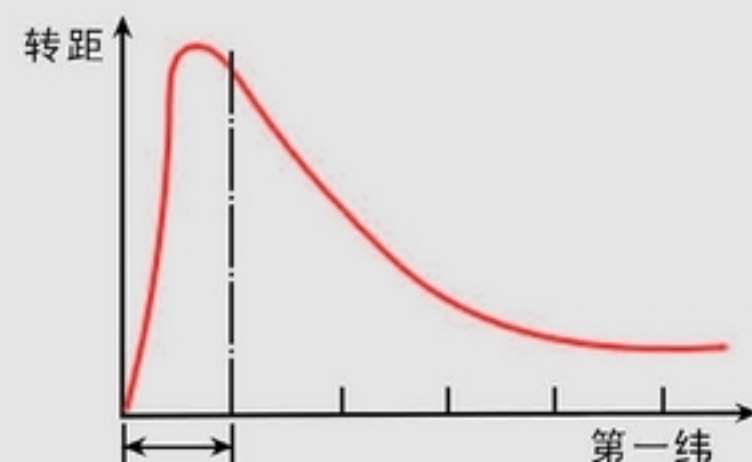
用户可根据需要选择中文或英文人工操作界面。

#### 【Computer control system】

Equipped with man-machine interface key-board, it is easy to input all kinds of data, and all the data of machine running condition, fault reason, towel design and machine setting can be showed on screen. All the data can be transferred to other machines by IC card.

#### 【Humanized interface】

Customer can choose Chinese or English operation interface.



#### 【动力·超起马达】

采用当今先进的超起马达，在织机启动时可以产生高输出转矩，以提高第一梭的打纬力量。同时采用了大力矩的电磁刹车，提高了制动力，从而防止停车档的产生，提高了织物的产品质量。

#### 【Drive·super motor】

Adopts most advanced super motor, this motor can output high torque to increase the beating strength of the 1st pick when the loom is started. The high torque electromagnetic brake can prevent stop mark to much improve the quality of towels.



#### 【振动式永磁电动鼓筒储纬】

新型电动鼓筒储纬器，具有出色的高速跟踪性能，配备积极纱线分离送纱装置，可实现细支纱到粗支纱简单稳定的储纬及解舒。

#### 【Vibration type permanent magnetism FDP】

New type FDP accumulator with perfect high speed tracking function, equipped with positive weft separating feeding device, can feed both fine yarn and thick yarn very well.





#### 【双探头探纬器】

探纬器采用双探头方式，除了探知通常的短纬或弯纬外，还可探知纬纱被吹断或长纬的现象，从而做到万无一失。探头耐污性强，探测稳定可靠。

#### 【Double weft sensors】

Adopts double weft sensors, not only can detect short and loose picks, but also can detect weft break and long pick, can ensure no fault in fabric.



#### 【集成气路系统】

在极小的空间里将整机气路所有元气件集成在一个操作面板上，即紧凑又不失协调。在使用过程中，操作起来方便且节省空间。

#### 【Integrated system of air circuit】

All the components of air circuit are integrated on an operation panel in a very small space, it is easy to operate and also can save space.



#### 【ABS纬纱制动器】

大幅减少引纬结束时的峰值张力，实现高速状态下强捻织物起皱均匀。有效防止加工丝织造过程中产生紧纬和松纬。

#### 【ABS weft brake】

ABS can much reduce the peak tension when a insertion finishes, which can ensure high twist fabric crinkles uniformly, and prevent tight and loose picks.

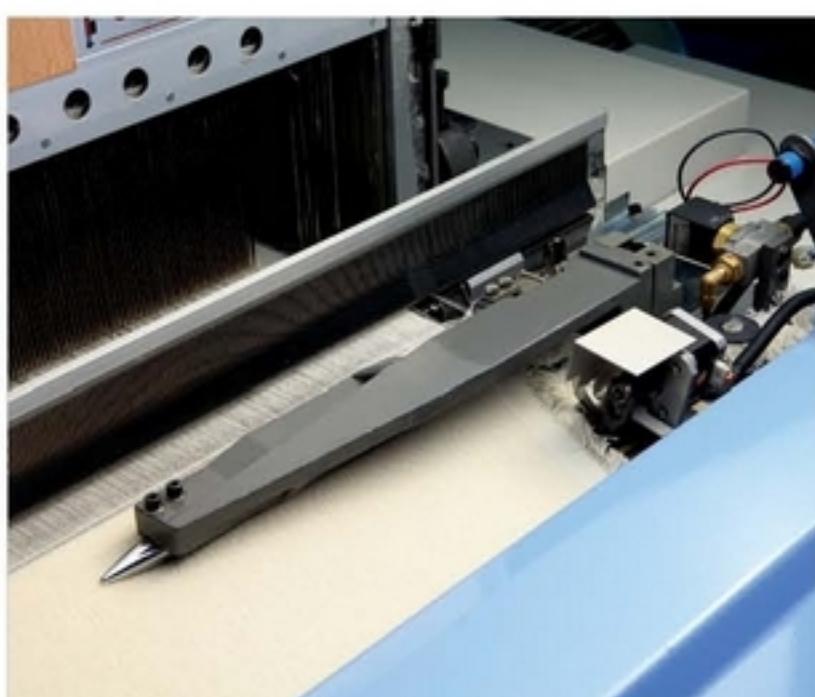


#### 【精确起圈系统】

精确伺服控制起圈系统。终端设置张力值，并通过电子线性传感器时时感知毛经纱张力，实施反馈参数经高性能CPU微处理器管理和监控与卷取、送经参数完美同步织造。连续监控毛巾及缎档组织的长度以及各种纬纱的密度。高刚度与高精度的张力系统，确保高规律的毛经送入。高灵敏的毛经张力控制机构摆动梁及其轻质支架设计，即使用最精细娇柔的纱线，也能有最小而且最规则的毛经张力与最一致的毛圈高度。

#### 【Accurate terry formation】

Adopts accurate terry formation system controlled by servo device. Warp tension is set on panel, and the terry warp tension can be sensed all time though electric linear sensor, the data of tension is processed by CPU to manage and monitor the ELO & ETU to weave fabrics perfectly. Continue monitoring towels quality & the border length and various pick densities. High rigidity and precision tension system ensures high regular warp let-off. High sensitive of swing beam and its light support design can ensure a regular loop height even using finest yarn.



#### 【上置式边撑】

由于采用了上置式边撑，可以很容易地实现边撑的退出调整。从而还可以调整覆盖量。

##### • 滑板导杆

通过将支撑织口的导杆与毛圈运动机构相对准并前后移动滑板，可避免使布受到强烈的摩擦，从而提高了毛圈的品质。另外由于使导杆接近织口，因此可以很容易地织造特殊边纹和长毛圈。

##### • 边撑积极驱动

根据边撑与拉伸布的织口导杆连接，使边撑和布的漂移消失。从而实现高速度和高品质。

#### 【Up mounted temples】

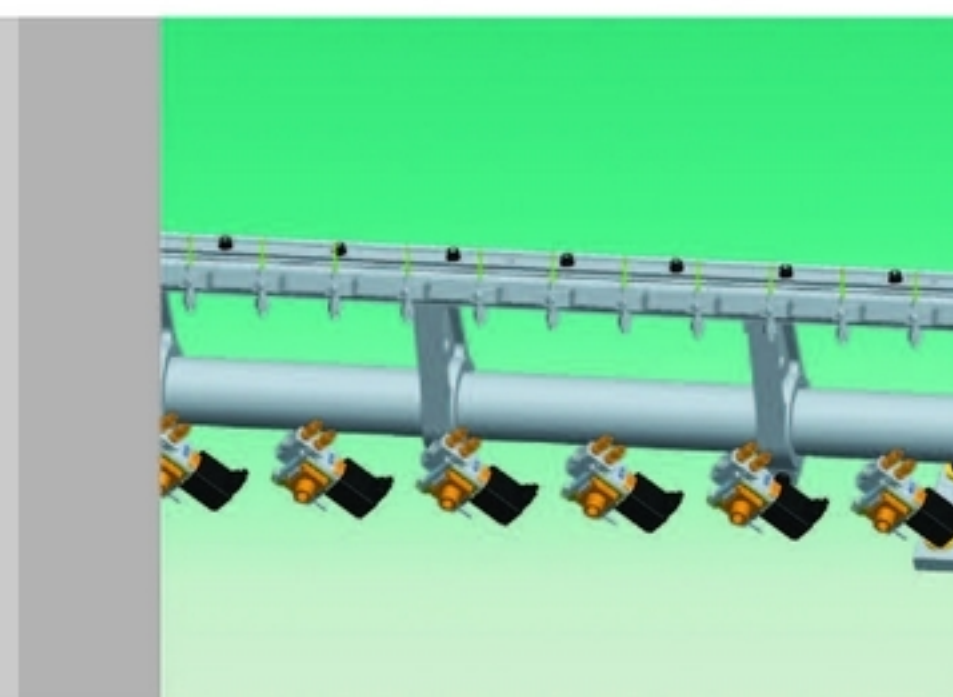
It is easy to adjust temples and temple covering.

##### • Sliding plate & guide shaft

Violent friction to towels can be avoided through making the guide shaft which supports the cloth-fell to be synchronous with terry motion and the movement of the sliding plate; this can improve the quality of terry. On the other hand, because the guide shaft is close to cloth-fell, special design of selvage and long loops towels can be woven.

##### • Positive driving of temples

Temples are connected with guide shaft to prevent shifting of temples and fabrics; this can ensure a high speed and high quality of fabrics.



#### 【节省能源】

此机在节省能源方面进行了全面的考虑。实现了有利于纬纱的低压引纬。另外，由于在每2个副喷嘴之间配置了气阀，并将空气的途径缩短至极限，从而降低了约10%的耗气量。

#### 【Power saving】

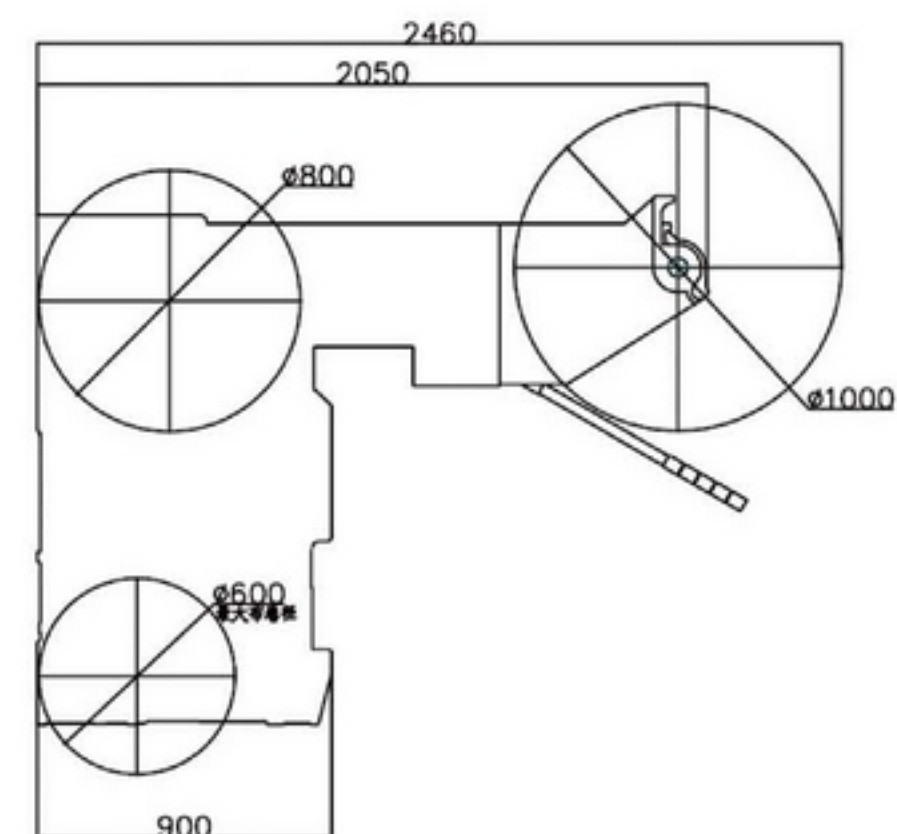
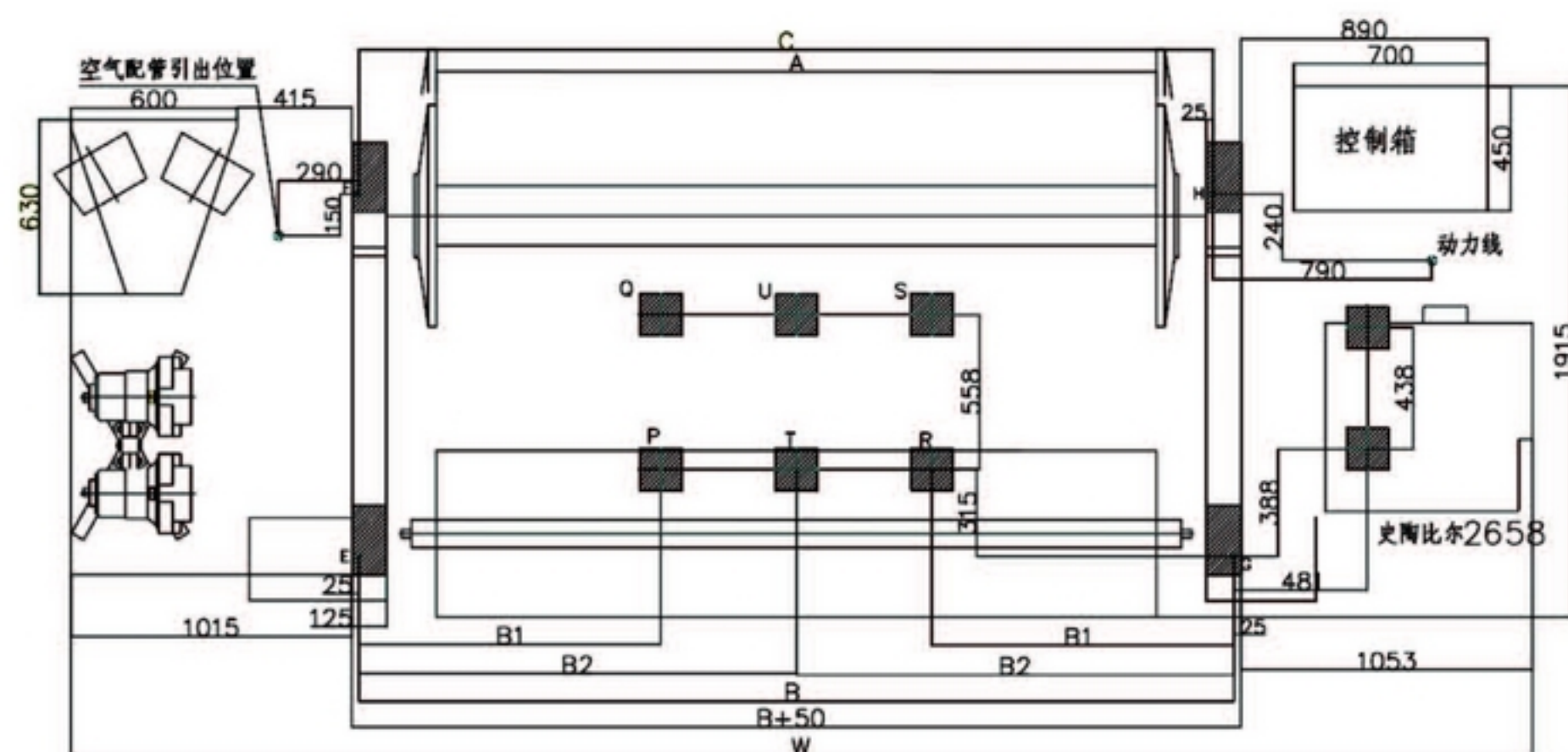
Power saving has been fully considered in the design of this model looms. Weft insertion can be made by low air pressure. And equipped with a valve between any two sub-nozzles; this can reduce the air route to minimum, so 10% air consumption can be saved.




项目	规格	选配件
箱幅	公称箱幅	190cm, 210cm, 230cm, 260cm, 280cm, 340cm
	有效箱幅	公称箱幅减0~60cm (190~230cm)
	箱幅	公称箱幅减0~80cm (260cm以上)
纬纱选择	四喷、六喷自由选纬	
动力	启动方式	超启动马达驱动
	马达功率	超启动马达: 3.7KW (多臂开口) 超启动马达: 5.5KW (提花开口)
	运转操作	通过电磁制动器直接控制定位停车
		按钮开关双手操作
打纬	四连杆打纬 (窄幅)、六连杆打纬 (宽幅)	
引纬	主喷嘴、副喷嘴并用式	延伸喷嘴
	使用双排异形箱	ABS纬纱制动器
	辅助主喷嘴	
开口	积极电子多臂开口: 最多20页综框	
	提花机开口	
送经	电控式连续积极送经	
	地经边盘直径: Φ800, 毛经边盘直径: Φ1000	地经边盘直径: Φ914、Φ1000, 毛经边盘直径: Φ1250
卷取	电子卷取	
	纬密范围: 25~300根/英寸	
	最大卷布直径: Φ600mm (机内卷)	
供纱架	落地式8只筒纱 (4喷)、落地式12只筒纱 (6喷)	
起圈	伺服起圈: 动态毛圈控制, 由布运动形成毛圈。具有3~7纬自动控制起毛及转换功能	
	毛圈长度: 0~28mm之间任意设定, 间隔精度最高可为0.1mm	
布边装置	机械绞边	
纱端处理	弃边卷曲滚筒式	
剪纬器	左机械右电动式剪纬器	
测长储纬	振动式储纬器	
润滑	主传动部分为油浴式, 自动集中供油	
停车装置	纬停: 光电式探纬器、双探头	
	经停: 双排两列电气触点式停经装置	
	其它: 绞边纱、废边纱断头自停	
	停车显示: 控制面板显示停车原因, 多功能4色灯停车显示	
自动化	控制: 多功能微机控制系统, 具有参数设定/控制/监控/自我诊断/人工智能界面	
	通过变频器作慢点动 (正反转)	
	其它: 监控器输出端子	
	喷射自动控制	

Item	Specifications	Options
Reed width	Reed width	190cm, 210cm, 230cm, 260cm, 280cm, 340cm
	Working width	Reed width minus 0-60cm (190-230cm) Reed width minus 0-60cm (above 260cm)
Weft selector	4 color or 6 color at will	
Power	Start type	Super motor
	Motor power	Super motor: 3.7KW (Dobby shedding) Super motor: 5.5KW (Jacquard shedding)
	Operation	Stop controlled by magnetic brake directly Buttons on both sides
Beating	4 link lever (narrow machine), 6 link lever (wide machine)	
Insertion	Main nozzles and sub-nozzles	Stretch nozzles
	Profile double reed	ABS
	Relay main nozzle	
Shedding	Electronic dobby, max 20 shafts	
	Electronic jacquard	
Let-off	Electronic continuous positive let-off	
	Ground beam flange: dia 800mm Pile beam flange: dia 1000mm	Ground beam flange: dia 914mm, dia 1000mm Pile beam flange: dia 1250mm
Take-up	Electronic take-up	
	Weft density: 25-300/inch	
	Max cloth: dia 600mm	
Cone stand	Console stand for 8 cones (4 colors)	
	Console stand for 12 cones (6 colors)	
Terry motion	Servo terry motion: dynamic terry control	
	Loop formation by fabric movement	
Selvage	Loop length: 0-28mm at will, the accuracy of two neighboring loops height different can be 0.1mm max	
	Mechanical	
Yarn end treatment	Waste selvage winding roller	
Weft cutter	LH mechanical RH electronic	
Weft feeder	Vibration type	
Lubrication	Main transmission: oil bath, other components: automatic centralization greasing	
Stop motion	Weft: photoelectric weft sensor, double sensors	
	Warp: two rows and two lines electric stop motion	
	Other: auto stop motion for selvage yarn	
	Stop indicating: stop reason on panel, 4 color lamps	
Automatic	Control: multi-function microcomputer system, with parameter setting/control/monitor/ autodiagnosis/artificial intelligence interface	
	Inching by inverter (forward and reverse)	
	Others: monitor output terminal	
	Auto control air jet	






注

- 1) 用  表示的安装脚位置的记号E~U之间的高低差应在2mm以内。
- 2) 基础螺栓的记号P~U根据规格按需选择。
- 3) 边盘直径为914时，需要垫高织机，图中\*50为垫片厚度。
- 4) 最大纵深根据规格而有所不同，以边盘部或控制箱端部为准。

规格: 190~340cm

积极落地式多臂开口：史陶比尔2658

Remark:

- 1) The height difference of installation feet marked by  from E-U should be less than 2mm;
- 2) Ground bolts marked by P-U are decided by actual request.
- 3) If the flange dia of beam is 914mm, the looms should be blocked up. In the above Fig \*50 is the thickness of pad.
- 4) The widths from front to back side are different according to different specifications, the actual size is between edges of flange and control box.

Specifications: 190-340cm

Positive floor mounted dobby: Staubli 2658

R/S	A	B	C	W	B1	B2
190	1900	2460	2385	4578	—	—
210	2100	2660	2585	4778	—	1330
230	2300	2860	2785	4978	—	1430
260	2600	3160	3085	5278	1090	—
280	2800	3360	3285	5478	1090	—
340	3400	3960	3885	6078	1090	—

本图适用于RFJA33机型。该尺寸仅供参考，具体可根据客户厂房实际情况自行调整。至于其他规格的详细尺寸，请直接向我司咨询。

This dimension drawing is only reference for RFJA33 loom. It is only for your reference, you can adjust it by yourself according to factory building. Please contact us to get the dimensions of other looms.





全方位服务  
SERVICE



山东日发纺机秉承“成功源自顾客满意的产品和服务”的理念和“为顾客提供全方位服务”的宗旨，为顾客提供完善的售前、售中和售后服务。

【咨询服务】为客户提供技术交流和产品咨询服务，提供性价比最优的产品配置方案，协助规划出最适合的车间布局草图。

"Succeed comes from products and service which customers satisfied" and "Supply excellence services for customers" are our belief and aim. We prepare to provide perfect per-marketing, service on sale, after sale services.

#### 【Pre-marking services】

Communication and products counseling, help for matched groups with the best ratio of performance to price, assist the customer to plan the most suitable layout drawings.



【人员培训】资深技术人员提供设备的安装调试服务，同时为客户进行设备使用和保养的培训，确保织机在最佳状态下运行，为用户创造最大效益。

【技术支持】及时全面。根据需要参与织机初期的织造试验，协助客户分析具体的织物特性、确定满足质量和产量要求的最恰当的织机参数和配置、协助制定出最适当的工艺方案。

#### 【Technician training】

Senior engineers provide the machine installation, and meantime, and supply training how to operate and maintain machines to ensure the looms working perfect.

#### 【Technical support】

Technical support are comprehensive and in time. Our engineer can participate in the start weaving test if necessary, assist the customer to analyse the fabrics to set the best parameters and finalize the technical programme.



【售后服务】强大的销售服务网络可在24小时内及时做出反应，并利用尽可能快捷的交通工具抵达客户所在地，迅速可靠地提供备/配件，以缩短用户的等待时间，最大限度地保障用户利益。

#### 【After-sale service】

We have large sale-service-net, and we can make response within 24 hours, and try to get to the customers location by quickest vehicle to shorten machines' downtime.



Choiceness/High ratio of performance to price +  
Perfect after-sale Service =Absolute Market Share.

优良/高性价比的产品+完善的售后服务=绝对的市场占有率