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浙江日发纺织机械股份有限公司
ZHEJIANG RIFA TEXTILE MACHINERY CO.,LTD

Add: RIFA Digital Technology Zone, Xinchang Hi-tech Industrial Park, Zhejiang,China(312500)
地址: 浙江省新昌县高新技术产业园区日发数字科技园

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For the purpose of improving product quality, our company reserves the right to change product specifications without notice.



WEAVING Solutions
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无缝内衣机系列
SEAMLESS MACHINE SERIES



关于日发纺机

浙江日发纺织机械股份有限公司成立于2002年，注册资金6948.7万。公司系国家重点高新技术企业，国家机械工业重点骨干企业，国家863计划CIMS工程示范企业，全国CAD应用工程示范企业，国家火炬计划重点高新技术企业，中国纺织机械协会副会长单位。现旗下控股山东日发纺织机械有限公司、安徽日发纺织机械有限公司、浙江日发纺机技术有限公司。

公司以成为“敏捷化的国际性公司”为愿景，以“为用户提供智能纺织装备系统解决方案，并协助用户逐步实现数字化工厂”为使命，致力于机电行业的“数字科技”，已成为国内外享有高知名度的纺织设备生产企业。二十几年来已成功开发了清梳联、并条机、转杯纺纱机、喷气涡流纺纱机、倍捻机、直捻机、假捻变形机、精密并纱（络筒）机、自动穿经机、喷气织机、喷水织机、剑杆织机、毛巾织机、特种织机、针织圆机、无缝内衣机、袜机、非织造布设备等系列的上百种产品，能够为行业提供纺纱、前准备、织造、非织造四大解决方案，涉及纺织行业的各个领域。产品遍及全国各地，并销往全球30多个国家和地区，在各个行业的市场占有率位居前列。

日发纺机正致力于创造崭新的“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。

浙江日发纺机技术有限公司系日发纺机全资子公司，注册成立于2009年。公司主要产品为针织圆机、袜机、无缝内衣机、倍捻机、直捻机、假捻变形机、精密并纱（络筒）机，继承日发纺机二十多年的专业经验，致力于打造世界智能化高端纺织机械设备研发与制造基地。



About Us

Zhejiang Rifa textile machinery co., ltd. is founded in 2002 with a registered capital of 69.487 million yuan. The company is a China national key high-tech enterprises, a key enterprise of the China national machinery industry, a demonstration enterprise of both China national 863 program CIMS engineering and China national CAD application engineering, a China national torch plan high-tech enterprise, and a vice president unit of China textile machinery association. It now holds three subsidiaries: Shandong Rifa textile machinery co., ltd., Anhui Rifa textile machinery co., ltd. And Zhejiang Rifa textile machinery tech co., ltd.

With the vision of “become an agile and international company” and the mission of “Provide users with intelligent textile equipment system solutions, and help users gradually realize the dream of a digital factory”, Zhejiang Rifa Textile Machinery Co., Ltd. is devoted to the area of “digital technology” in mechanical and electrical industry, and has become a well-known textile equipment manufacturer with excellent reputation at home and abroad. For over twenty years, the company has successfully developed four solutions such as spinning, fibre preparation, weaving and non-woven, including blow-room machine, draw frame, rotor spinning machine, air jet vortex spinning machine, two-for-one twister machine, twister machine for tire cord, false-twist texturing machine, precise winding machine(precise rewinding machine), automatic warp drawing machine, air jet loom, water jet loom, rapier loom, terry towel loom, specific loom, circular knitting machine, seamless knitting machine, hosiery machine and non-woven equipment etc hundreds of machines. These products have been distributed to all areas around China and sold to more than 30 foreign countries and regions with a leading market share in each respective industry.

RIFA is devoting itself to create a whole new theory of digital technology, establishing an interactive platform of “people flow, material flow and information flow”, realizing harmony and unify of science and technology, environment and manufacturing, and aiming to become a manufacturing base of “informatization, agility and internationalization”.

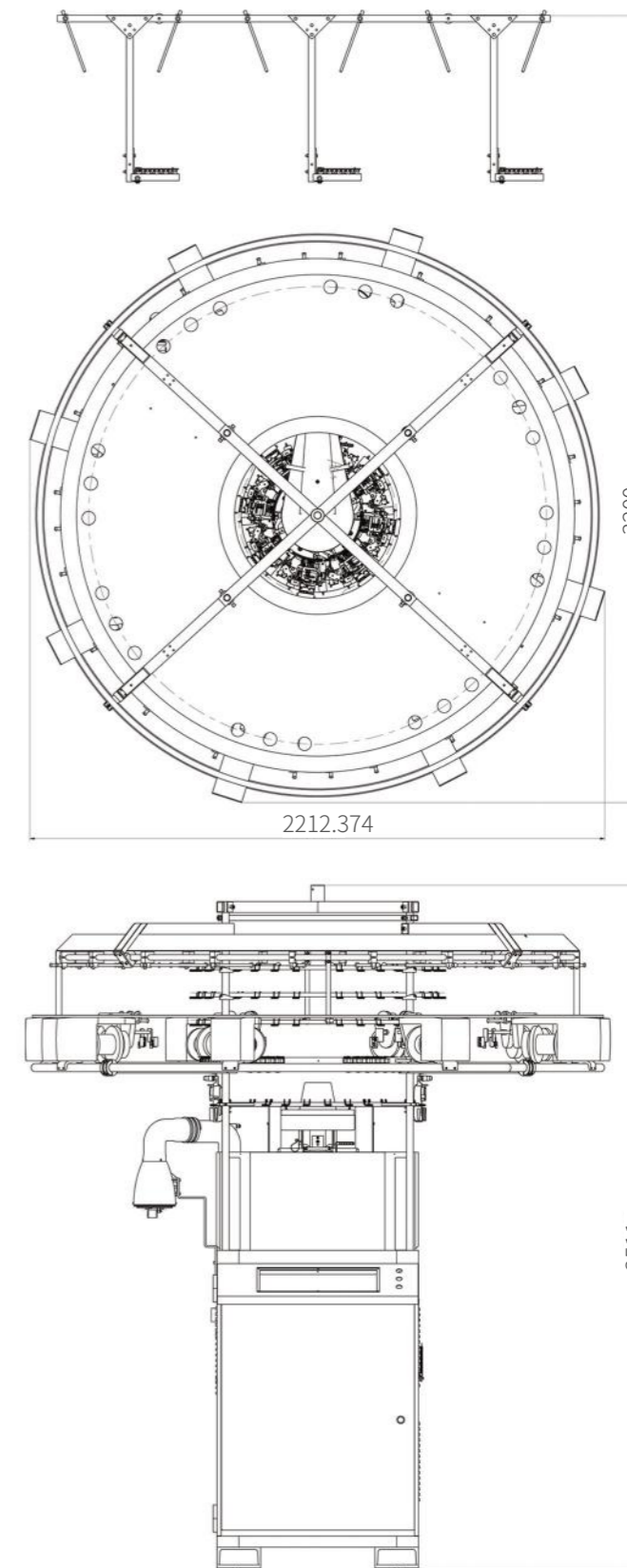
Incorporated in 2009, Zhejiang Rifa Textile Machinery Tech Co., Ltd. is a wholly-owned subsidiary of RIFA. The company's main products include circular knitting machine, hosiery machine, seamless underwear machine, two-for-one twister machine, twister machine for tire cord, false-twist texturing machine and precise doubling machine(precise rewinding machine) . The company has inherited professional experience of over 20 years in RIFA, and is committed to becoming the world R&D and manufacturing base of intelligent high-end textile machinery and equipment.





日发纺机一直致力于针织技术增值的研究，使客户更经济的生产出更好的产品。RFSM无缝内衣机的成功研发便立足于此。该内衣机可使用天然纤维、合成纤维、人造纤维以及氨纶和包芯纱等为原料，是一次性编织生产无缝单面服装的专用加工设备。

RIFA Textile Machinery has been committed to the research of value-added knitting technology, aiming to help customers manufacture better products in a more economical way. The successful development of RFSM seamless underwear machine is out of this effort. The underwear machine can use natural fiber, synthetic fiber, artificial fiber, spandex and covering yarn as raw materials, and serves as special processing equipment for one-time knitting and production



外形尺寸图 Machine Dimension Drawing



裸氨织造工艺

- RFSM无缝内衣机通过智能先进的氨纶控制系统、配以高针距编织部件所生产的裸氨面料，具有质地柔软、手感细腻、滑爽和光泽亮丽的特点。搭配纯棉、彩棉、莫代尔等面纱所生产面料保证了良好的吸湿性和透气性，悬垂飘然，优良的弹性和延伸性能最大限度的体现人体曲线，雕塑出女性的性感和魅力，是针织内衣未来的发展趋势。

Bare Spandex Weaving Process

- The bare spandex fabrics produced by RFSM seamless underwear machine through intelligent and advanced spandex control system and combined with high needle distance knitting components, are featured at soft texture, delicate feeling, smoothness and brightness. The fabrics produced in combination with pure cotton, colored cotton, modal and other face yarns ensure good hygroscopicity and gas permeability, dangling and floating, with excellent elasticity and extension performance to maximize the curvature of human body, and sculpt the sexy and charming beauty of women, which serves as future development trends of knitted underwear.



电气系统智能网络化

- 可配置物联网云平台，通过设备无线终端实现车间智能化管理、网络化管理，融合车间运行监控、云端管理、数据分析、智能生产技术，结合远程移动终端（电脑、手机）操控，全面提高企业信息化管理水平，全方位提高客户管理品质。
- 电器控制系统由日发公司自主开发，稳定可靠。
- 触摸式高清彩色显示电容屏，全中文的人机界面，操作极易上手。
- 数据总线式的控制设计，使得线路简单清晰、整齐美观。
- 独特的测试界面、电气设备管理功能以及直观的故障提示信息，大幅减少故障停机率。
- 方便快捷的参数修改功能：用户可直接在设备电脑上修改转速等参数。
- 简单方便的对零操作及自动校正零位功能。
- 支持电网突然断电的工作现场保护。自动检测电网电压，自动停机，自动关闭电源。

Intelligent Network of Electrical System

- The cloud platform of Internet of machines can be configured to realizes workshop intelligent management and network management though device wireless terminal, integrates workshop operation monitoring, cloud management, data analysis, intelligent production technology, combines with remote mobile terminal (computer, mobile phone) control, improves level of enterprise information management in a comprehensive manner, and lifts the quality of customer management in all aspects.
- The electrical control system is developed independently by Rifa Company, which is stable and reliable.
- Touch-type high-definition color display capacitive screen, full Chinese HMI, easy to operate.
- Data bus control design make the circuit to be simple, clear, neat and beautiful.
- Unique test interface, electrical equipment management function and intuitive fault prompt information, to greatly reduce the failure shutdown rate.
- Convenient parameter modification function: the user can directly modify parameters such as speed and other parameters on the equipment computer.
- Simple and convenient zero operation and automatic zero correction function.
- Support work site protection for sudden power failure of power grid. Detect the grid voltage automatically, shut down automatically, and turn off the power automatically.



工艺适应性广

- 每路2个16级选针器，能精确地对每一枚织针进行2次选针控制。
- 每路的半针和全针气动三角均具有三工位技术。
- 每路有6个主纱嘴，另加二个色纱纱嘴，可进行多色编织。其中1#、2#纱嘴有3个工位，3#、7#、8#纱嘴2个工位，4#、5#纱嘴有4个工位，6#纱嘴多达6个工位。
- 成圈三角由带共扼凸轮的步进马达独立控制，每一路均可在同一行中快速并匀速改变织物密度，实现3D功能。
- 弹性纱送纱器，可根据织物所需实现恒张力送纱，又可自动调节送纱张力，从而保证织物每个部位的弹性要求。

Wide Adaptability of Process

- Two 16-level actuators each feed, for accurate control of each knitting needle twice.
- The half-needle and full-needle pneumatic cams of each feed have three-position technology.
- Each feed has 6 main yarnfingers, plus 2 colored yarnfingers for multi-color knitting. Among them, yarnfinger 1# and 2# have 3 positions, yarnfinger 3#, 7# and 8# have 2 positions, yarnfinger 4# and 5# have 4 positions, and yarnfinger 6# has as many as 6 positions.
- The stitch cams is controlled independently by a stepping motor with a conjugate cam. Each feed can change the density of fabric in the same row quickly and uniformly realizing 3D function.
- The elastic yarn feeder can realize constant tension yarn feeding based on the requirements of fabric, and can automatically adjust the yarn feeding tension to ensure the elasticity requirements of each part of the fabric.



扎口自动缝合

- 全机最多可配置 64 个断纱感应器, 实时感知每根纱线的运动状态。断纱及缠线时及时发出停机信号, 有效防止织物疵品的产生。
- 扎口机构能根据工艺要求自动编织织物的一个或多个衬橡胶双层腰带组织。
- 每路一个线夹, 其中2、6路为双层线夹, 能自动夹持氨纶、色纱等弹性纱线, 利于连续编织。

Automatic Dial Jacks

- The whole machine can be equipped with up to 64 yarn breakage sensors for real-time sensing the running status of each yarn. In case that the yarn is broken or entangled, stop signal is sent in time to effectively prevent the occurrence of fabric defects.
- The tying mechanism can automatically weave one or more elastic welt according to the process requirements.
- One yarn clamp for each feed, of which feed No 2 and 6 double-layer clamps, which can automatically clamp elastic yarns (e.g. spandex and colored yarn) and is conducive to continuous knitting.



优化设计, 稳定可靠

- 双层铝座为一体式设计, 采用低压浇铸, 增密分子结构, 并经二次固溶热处理, 保证了编织机件的相对位置精度, 从而提高编织机件的工作可靠性。
- 针筒设计采用分体结构, 排杂空间大, 便于安装维修。
- 关键零部件采用三坐标检测, 严格控制精度, 从而保证整机性能的稳定性。
- 电磁阀采用集成设计, 整齐方便。

Optimized Design, Stable and Reliable

- The double-layer aluminum base is an integrated design, which adopts low-pressure casting, increases density of the molecular structure, and undergoes secondary solution heat treatment to ensure the relative position accuracy of knitting instrument, improving the working reliability of knitting instrument.
- The cylinder design adopts a split structure, featured at large space for discharging impurities, making it convenient for installation and maintenance.
- The key parts are tested by three-coordinates, and the accuracy is strictly controlled, so as to ensure the stability of the whole machine performance.
- The solenoid valve adopts integrated design, which is neat and convenient.



花型准备系统

- 链条程序软件与花型软件相互独立, 相互配合, 有效减少编程时间。
- 链条程序软件图标生动形象, 指令简单易懂, 便于客户短时间内熟练掌握运用。
- 花型软件同一般绘图软件, 操作简捷, 也可直接导入JPG、BMP等格式图片, 软件自动进行分色处理。
- 编织程序兼容进口设备的打版软件。

Pattern Preparation System

- The chain program software and pattern software are independent of each other and cooperate with each other, which can effectively reduce the programming time.
- The icon of chain program software is vivid, and the instructions are simple and easy to understand, making it convenient for customers in a short time.
- The pattern software is identical to the general drawing software, with simple and convenient operation, which supports direct import JPG, BMP and other formats, and the software performs color separation processing automatically.
- The knitting program is compatible with pattern making software of imported equipment.

技术规格和尺寸图

SPECIFICATION&DIMENSIONS

项目	技术参数
产品用途	适合于编织各种内衣、内裤、文胸、运动服、外装等
适用编织纱线	棉纱、毛纱、化纤丝、氨纶包芯纱和混纺纱线等
筒径	12-20英寸
针距	16-32针/英寸
路数	8路
纱嘴	8个/路
选针器	16级, 2个/路
成圈三角	每路1个, 步进电机控制, 同一行密度可调
储纱器	1个/路 (可选配2个/路)
恒张力送纱器	2个, 最多可到10个
断纱传感器	共43个 (可选配51个)
压缩空气	流量: 50L/min, 压力: 0.6—0.7MPa
吸风空气	流量: 10M3/min, 压力: -0.8MPa
净重	约700Kg
最高转速	RFSM20最高95RPM, RFSM30最高130RPM
润滑	可控制织针、沉降片和选针片的加油量
添纱提花功能	具有特殊效果的添纱提花功能
扎口技术	可编织单个或多个衬橡胶筋双层腰边组织
真毛圈装置	可添真毛圈组织, 有主圈加提花功能
断电保护	支持突然断电的工作现场保护, 自动检测、自动停机、自动关闭电源
氨纶送纱装置 (可选配)	1套

Items	Technical Parameters
Product function	Applicable for weaving of various underwear, underpants, bras, sportswear, outerwear, etc.
Applicable knitting yarns	Cotton yarn, wool yarn, chemical fiber yarn, spandex covering yarn and blended yarn, etc.
Cylinder diameter	12-20 inches
Needle gauge	16-32 stitches/inch
Number of feeds	8 for every diameter
Yarnfinger	8 pieces/feed
Actuator	16-level, 2 pieces/feed
Stitch cams	1 per feed, controlled by stepping motor, the density of the same row is adjustable
Yarn storage device	1 pieces/feed (optional 2 pieces/feed)
Constant tension yarn feeder	2, up to 10
Broken yarn sensor	Total 43 sensors (51 sensors optional)
Compressed air	Flow: 50L/min, Pressure: 0.6—0.7MPa
Suction air	Flow :10M3/min, pressure: -0.8MPa
Net weight	Approx. 700Kg
Maximum speed	Max. 95RPM for RFSM20, max. 130RPM for RFSM30
Lubrication	The lubrication amount of knitting needles, sinkers and selecting piece can be controlled
Function of adding yarn jacquard	Function of adding yarn jacquard with special effect
Tying technology	Available to weave single or multiple rubber-lined double-layer waist weaves
Real pile loop device	Available to add real pile loop structure, equipped with main loop adding jacquard function
Power-off protection	Support work site protection for sudden power failure, automatic detection, automatic shutdown, and automatic power off
Spandex yarn feeding device (optional)	1 set