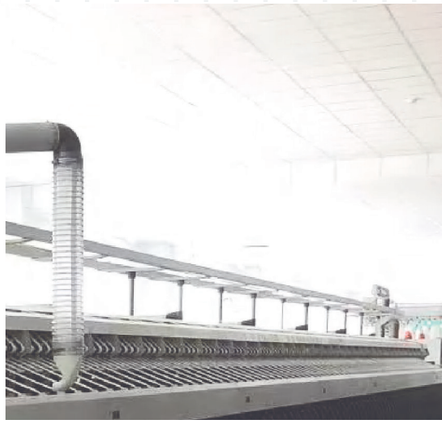
全球纺织业的朋友，中国制造业的骄傲

THE GLOBAL TEXTILE INDUSTRY FRIENDS,
THE PRIDE OF CHINA'S MANUFACTURING INDUSTRY

天津宏大纺织机械有限公司
Tianjin Hongda Textile Machinery Co.,Ltd

JWF1436C;JWF1446C 粗纱机 ROVING FRAME



粗纱机市场的开拓者

THE LEADER OF
ROVING FRAME MARKET

天津宏大纺织机械有限公司
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The specifications and external appearance of this unit are subject to change without prior notice.

JWF1436C;JWF1446C 粗纱机
ROVING FRAME

70 多年的粗纱机生产经验
紧跟国际粗纱机的发展潮流

70 years of experience in the production of roving frames, closely following the development trend of international roving frames

JWF1436C、JWF1446C粗纱机是在总结FA系列粗纱机优点的基础上，运用计算机控制技术、变频调速技术，研制的新一代高速智能粗纱机。其机电一体化程度高。高精度的控制系统及四个电机的分部传动形式，使整个纺纱过程实现了数字化控制，具有纺纱质量高、可靠性高等特点。

Model JWF1436C, JWF1446C Roving Frame is the latest generation cone drumless version which is developed on the base of FA series with the microcomputer control.The regulating speed by inverter. The machine has the high level of mechanical and electrical integration. High-precision control system and in the form of four motor divisions drive, so that the whole of spinning process to achieve a digital control, with high yarn quality and high reliability.

新一代高速智能粗纱机
NEW GENERATION OF HIGH-SPEED COMPUTER ROVING FRAME

1 高速度
HIGH SPEED

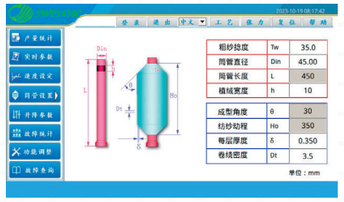
★ 采用高速封闭锭翼，由齿轮传动。
★ Using high-speed closed type flyer, by gear transmission.

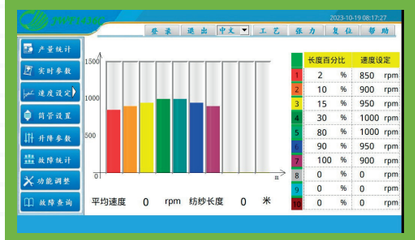
2 高效率、操作简便
HIGH EFFICIENCY AND SIMPLE OPERATION

★ 贮存成熟工艺功能。工艺存储数据库中可以储存不同品种不同支数的成熟纺纱工艺，工艺调整和更换品种方便快捷。
★ 只保留牵伸变换齿轮，其余变换齿轮均被取消，用人机界面输入相关工艺参数。
★ All process data is stored and can be recalled up at any time.Except the drafting change gears,all of other change gears are eliminated.
★ The technological parameters are input directly on the touch screen.

3 追求高质量的粗纱
PURSUIT THE HIGH QUALITY ROVING

★ 由CPU和多个高精度的旋转编码器组成实时检测、反馈控制系统。
★ 通过高精度变频控制系统，进行数字化控制，在整个纺纱过程中，严格按数学模型控制粗纱张力，实现对纱线的恒张力控制。
★ 断电保护功能，有效解决突然断电光电停车全台断头的问题。
★ The current inspecting and feedback controlling system are composed of CPU and multi rotary encoders with high accuracy.
★ The digitallsation control is accomplished by the inverter control system with high accuracy. The roving tension is strictly controlled during running by math. patterns to ensure the uniform roving tension.
★ Power-off Protection Function: Effectively preventing all ends breakage during sudden power breakdown.





自动保持粗纱离心力的恒定
Automatically keep the uniform centrifugal force of roving

纺纱速度自动调节
Spinning speed automatic adjustment

减少断头
Less end breaking

主要特点 /MAIN ADVANTAGES

取消传统粗纱机的锥轮变速机构，锥轮皮带复位控制机构，成形机构、张力微调装置、差动机构、换向机构及升降传动机构等，采用四电机分部传动形式，运用计算机、变频技术组成一个高精度的控制系统，通过多个具有自主知识产权的数学模型，由计算机实现四电机之间的同步控制。
The conventional mechanisms of cone drum and its belt automatic resetting, winding tension compensating, builder, differential motion, reversing and driving system for lifting bobbin rail are all eliminated and replaced by four separate motors. The high precision control system is composed of computer, inverter, and the synchronous control between four motors is realized by computer via several patented math patterns.

★采用四台电机分部传动，四合一变频驱动，计算机主控。	★ Using 4 motors drive segment，Four in One inverter drives,CPU master.
★采用桥架式走线，电气安装方便，同时减少电气信号干扰。	★ Using bridge–type alignment,electrical easy installation，while reducing the electrical signal interference.
★满纱定长定位停车，满纱由计算机进行计长和计算来控制，最后一层粗纱可提前换向以保证定长定位，且每落粗纱长度误差小于 1 米。	★ The full length of yarn to locate parking,full of yarn by the Comptroller and computing computer controlled positioning under the premise of guaranteed fixed length can be changed to the last layer of roving in advance to ensure that every drop roving error is less than 1 meter length.
★多电机同步控制，实现恒张力纺纱	★ Multi–motor synchronous control for constant tension spinning
★多段速纺纱，纺纱速度在显示屏可设。自动保持粗纱离心力的恒定，提高纺纱品质。	★ The multi–stage speed is adopted to spin and the spinning speed can be set on the screen. Automatically keep centrifugal force constant and improve spinning quality
★通过人机界面，进行成型位置和落纱位置的设定，还可进行状态查询、故障查询、I/O 点查询。	★ Through the HMI, the state inquiry, fault finding, I/O points queries.
★巡回式清洁器运行模式可根据节能需求设定运行周期和间隔时间。	★ Tour cleaners operating mode can be set to run cycle and intervals as needed.
★预留网络接口，可实现网络管理和远程监控。	★ Reserve network interface,network management and remote monitoring.

牵伸形式/DRAFTING SYSTEM

具有三罗拉双短皮圈和四罗拉双短皮圈两种牵伸型式供用户选择。

3-roller and 4-roller double short aprons drafting system are available at option.

标准配置： 中国YJ-40弹簧加压摇架。

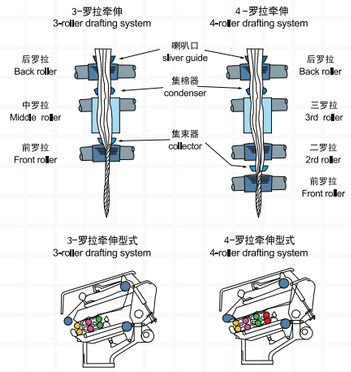
选用配置： 德国TEXParts公司的PK1550弹簧加压摇架及皮辊；
德国Suessen公司的板簧加压摇架及皮辊。

STANDARD CONFIGURATION:

Chinese YJ-40 Spring-loaded pendulum arme.

OPTIONAL CONFIGURATION:

The pendulum arm of Texparts PK1550 and Roller bearing;
Suessen Leaf spring pressure pendulum arme and Roller bearing.



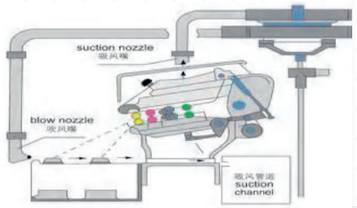
清洁系统/CLEANING SYSTEM

清洁系统采用积极式回转绒带上下罗拉清洁装置，并配备巡回式清洁器及吸风风道。巡回式清洁器吹风嘴将车面上飞花和下清洁盖板落下的废花等杂质吹到安装在车面后侧的吸风管道吸口处被吸走。

巡回式清洁器吸风嘴吸除上清洁盖板的废花；有效地避免了棉杂卷入粗纱，防止了纱疵的产生，减少了操作工的清洁工作。

The perfect self-cleaning system is presented in this machine. Upper and bottom positive intermittent revolving cloth are adopted and the traveling cleaner and suction channel are equipped.

The waste combed from the bottom clearer cloth together with the flyings accumulated on spindle rail cover and roller beam are all blown into the suction outlets which are located on the back side of roller beam .Meanwhile the waste combed from the upper clearer cloth is suck up by the traveling suction nozzle,for effective preventing the flyings to adhere into the roving and decreasing the roving faults.



高架导条架/CREEL WITH GANTRY

导棉辊为铝合金材质，积极传动，每段导棉辊连接处均有滚动轴承消除意外牵伸。

The guide roller is made of the aluminium alloy with the positive feeding. The closed type ball bearings are equipped with the connecting places of the guide roller of each staff to eliminate the false draft.

主要规格/ SPECIFICATIONS

机型	JWF1436C	JWF1446C	
锭距(mm)	216	185	
锭数	120, 132, 144, 156, 168, 180, 192	120, 132, 148, 160, 176, 188	
牵伸倍数(倍)	4.2~12		
捻度范围(捻/米)	18.5~80		
适纺线密度(Tex)	200~1000(Nm 5~1)（纺化纤品种可达1250Tex）		
适纺纤维长度(mm)	棉型纤维22~38	38~51	51~65
牵伸形式	三罗拉或四罗拉	三罗拉或四罗拉	三罗拉
最高机械转速(转/分)	1500		
纺纱转速(转/分)	1300		
装机功率(kW)	33/ 38.5/ 42		
总排风量(m^3/小时)	2000		
机器手向	左、右手		
清洁装置	上、下积极回转绒带，巡回式吹吸风装置		
条筒直径(mm)	Φ400或Φ500或Φ600		
走线方式	桥架式走线		
锭翼	等高或等导纱角		

Model	JWF1436C	JWF1446C	
Spindle gauge(mm)	216	185	
Nos.of spindle	120, 132, 144, 156, 168, 180, 192	120, 132, 148, 160, 176, 188	
Drafting range(Times)	4.2~12		
Twist range(T/M)	18.5~80		
Adaptable Counts	200~1000(Nm 5~1)(Spinning chemical species up 1250 Tex)		
Spinning staple(mm)	22~38	38~51	51~65
Drafting system	3-roller or 4-roller	3-roller or 4-rolle	3-roller
Max. mechanical speed (rpm)	1500		
Spinning speed (rpm)	1300		
Total rated power(kw)	33/ 38.5/ 42		
Total air exhaust(m^3/h)	2000		
Orientation	R or L hand		
Cleaner	Upper and bottom positive intermittent revolving cloth and traveling cleaner.		
Dia.of can(mm)	Φ400 or Φ500 or Φ600		
Line routing	Bridge wire		
Flyer	Level or non-level flyer		

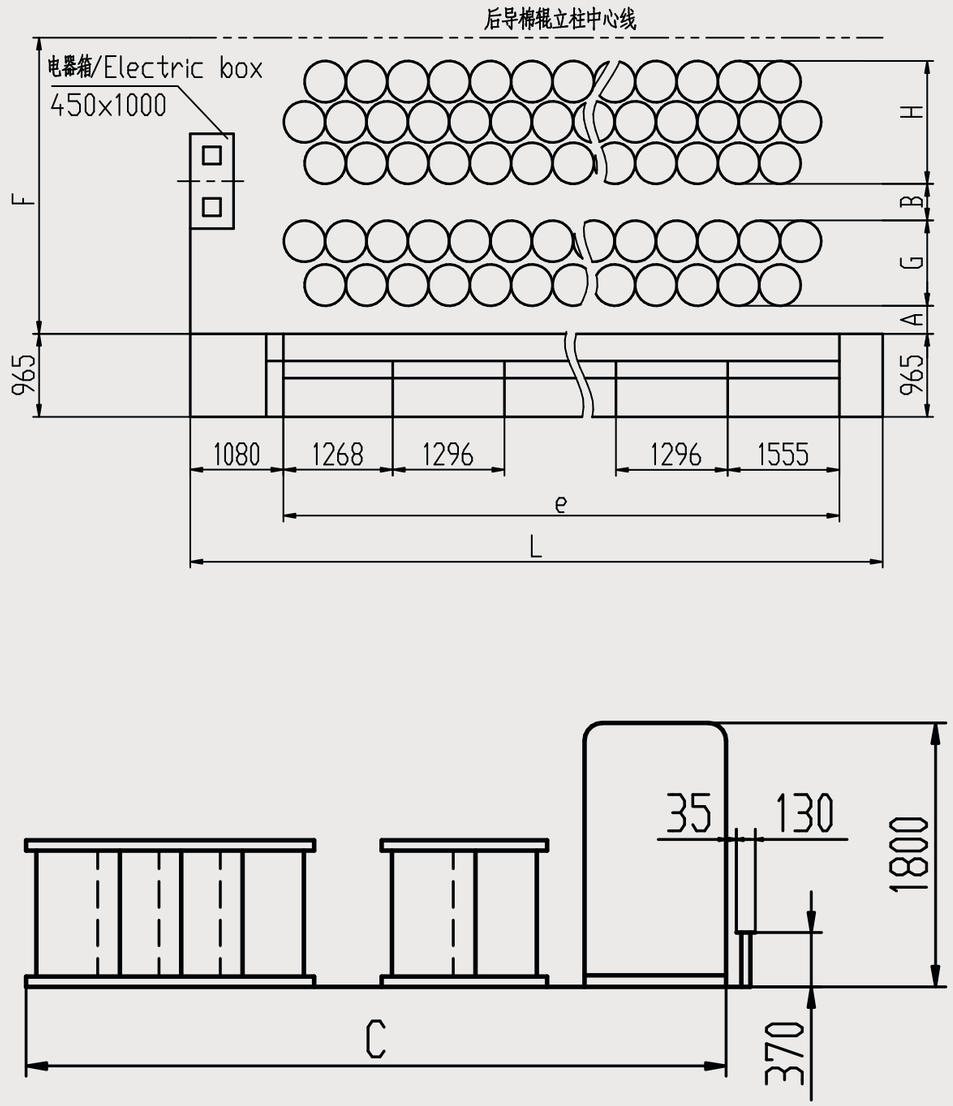
JWF1436C

16 英寸 (ϕ400) 棉条筒 /CAN FOR Φ16#(ϕ400) INCH

锭数 Nos.of spindle	尺寸 Dimensions			代号 Symbols		
	e			L		
120	13191			14775		
132	14487			16071		
144	15783			17367		
156	17079			18663		
168	18375			19959		
180	19671			21255		
192	20967			22551		
项目						
代号	A	B	C	F	G	H
条筒排列方式	367	455	3347	2411.5	780	780
Items						
Symbols	A	B	C	F	G	H
Arrangement mode of cans	367	455	3347	2411.5	780	780

20 英寸 (ϕ500) 棉条筒 /CAN FOR Φ20#(ϕ500) INCH

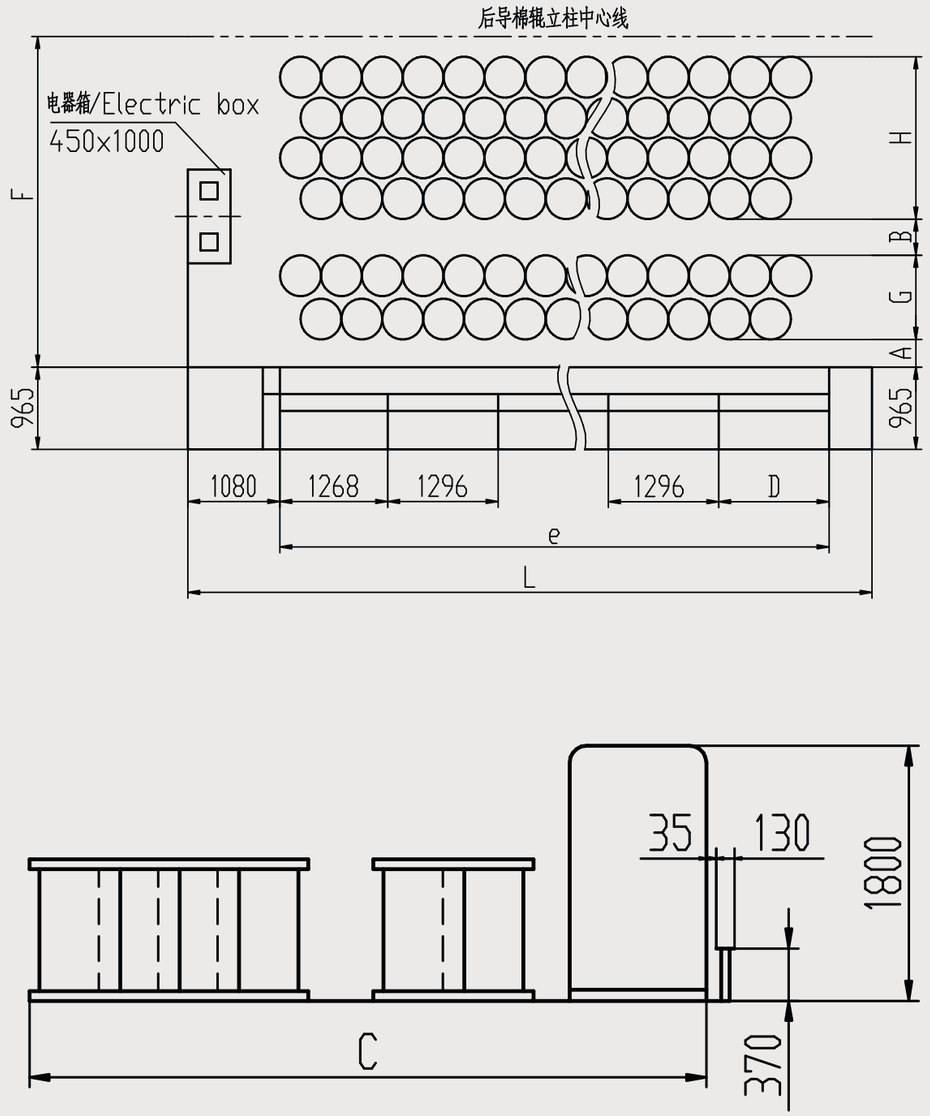
锭数 Nos.of spindle	尺寸 Dimensions			代号 Symbols		
	e			L		
120	13191			14775		
132	14487			16071		
144	15783			17367		
156	17079			18663		
168	18375			19959		
180	19671			21255		
192	20967			22551		
项目						
代号	A	B	C	F	G	H
条筒排列方式 (一)	352	560	4392	2926.5	1015	1500
条筒排列方式 (二)	352	0	-	2970	1015	1500
Items						
Symbols	A	B	C	F	G	H
Arrangement mode of cans(I)	352	560	4392	2926.5	1015	1500
Arrangement mode of cans(II)	352	0	-	2970	1015	1500



JWF1446C

16 英寸 (ϕ400) 棉条筒 /CAN FOR Φ16#(ϕ400) INCH

锭数 Nos.of spindle	尺寸 Dimensions		代号 Symbols			
	e		L		D	
120	11332		12916		992	
132	12443		14027		807	
148	13924		15508		992	
160	15035		16619		807	
176	16516		18100		992	
188	17627		19211		807	
项目						
代号	A	B	C	F	G	H
条筒排列方式	387	444	3799	2433	797	1206
Items						
Symbols	A	B	C	F	G	H
Arrangement mode of cans	387	444	3799	2433	797	1206

20 英寸 (ϕ500) 棉条筒 /CAN FOR Φ20#(ϕ500) INCH

锭数 Nos.of spindle	尺寸 Dimensions		代号 Symbols			
	e		L		D	
120	11332		12916		992	
132	12443		14027		807	
148	13924		15508		992	
160	15035		16619		807	
176	16516		18100		992	
188	17627		19211		807	
项目						
代号	A	B	C	F	G	H
条筒排列方式	316	544	4746	3704	982	1939
Items						
Symbols	A	B	C	F	G	H
Arrangement mode of cans	316	544	4746	3704	982	1939