



## 江阴市华方新技术科研有限公司 JIANGYIN HUAFANG NEW TECHNOLOGY & SCIENTIFIC RESEARCH CO.,LTD.

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## HFJ系列紧密纺装置

**HFJ Compact Spinning Assembly** 



### 企业介绍

江阴市华方新技术科研有限公司 创建于1991年,位于江阴长寿工业园 区, 是纺织机械工业重点骨干企业, 江苏省高新技术企业; 承担国家火炬 计划和国家重点新产品开发,已通过 ISO9001:2008质量管理体系认证,全 面推行信息化管理。

华方科技本着"为客户创造价 值,给同行树立榜样,建华夏百年企 业, 创中国世界品牌"的经营理念, 精益求精,不懈追求。

华方科技充分利用在纺织机械领 域中已取得的技术成果, 结合国内外 新型纺纱技术,研制开发了细纱机紧 密纺改造装置、涡流纺纱机、智能化 落纱系统、纱线自动包装系统、阿克 明斯特地毯织机及新型球经、分经机 等一系列产品,为推动纺织工业的进 步发展做出贡献。

#### Profile

Established in 1991 and located in Jiangyin Changshou Industrial Park, Jiangvin Huafana New Technology & Scientific Research Co., Ltd. (hereinafter called "H-FANG" ) is one of leading textile machinery enterprises in China and High-tech enterprise in Jiangsu Province. ISO9001-2008 System certified and fully under informatization management,

H-FANG undertakes National Torch Plan and national important new products development.

With the running ideas of Create value for customers, Set examples for competitors, Build a century business in China, Set world brand in China, H-FANG keeps improving and developing.

H-fang made full use of existing achievements in textile machinery field and the latest technologies available in the world, developed various advanced products for textile industry such as Compact conversion kit for ring spinning machines, Vortex air-jet spinning machine, Auto-doffing conversion for ring spinning machine, Yarn auto-packing robot, Axminster carpet loom and Ball warper and Long chain re-beamer. H-fang made contributions to the progress of the textile industry.

### 董事长致辞

华方新技术科研有限公司秉承精益求精、不 懈追求卓越的信心和勇气,不断丰富作为专业机 械制造商应具备的阅历和实绩。

凭借严格的管理和多年来所积累的生产经 验,华方科技致力于提供从造型、工艺,到质地 内外兼修的各类高质量、高性能的机械设备。

华方科技将珍视每一次机会, 以期与国内外 新、老客户建立稳固持久, 互惠互利的业务合作 与交流,携手并进,共同发展!



董事长(board chairman) 美多序



#### Remarks from President of H-FANG/China

With relentless pursuit of excellence in the confidence and courage, and as a professional leading machinery manufacturer, H-FANG/China has been gathering experiences and successes in manufacturing different machines for textile industries.

With the strict management and rich experiences for years in this field, H-FANG/China is committed to provide various types of high-quality, high-performance textile machineries and try best to make things perfect from shape, process to quality internal and external.

H-FANG/China treasures each opportunity to establish and maintain a firm and lasting relationship with domestic and foreign new and old customers. We believe mutual beneficial business cooperation and exchanges enable us to make a rapid progress hand in hand.



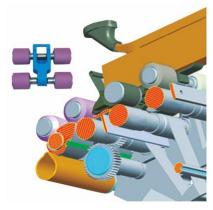


## HFJ系列紧密纺装置

本公司采用独到的四罗拉紧密纺及紧密赛络纺装置对细 纱机进行改造,结构设计合理,零件制造精良,纺纱效果明 显。

### HFJ compact spinning assembly

HFJ compact spinning assembly is four-roller devicedesigned for modification on traditional ring frames. Enjoying perfect structure, good workmanship, its performance is well accepted ever since its launching market.



## 主要结构特点

- 采用四罗拉与紧密纺皮辊夹持网格圈积极传动。
- 紧密纺负压系统采用总风机、总风道并配有滤网防止 二次污染车间。
- 模块化设计,6锭或8锭为一单元。
- 负压分配系统配置合理,各吸口气流一致性好。
- 异形管吸口优化设计,有利于须条集聚。
- 采用变频技术在纺不同支数纱线时对负压进行控制。
- 网络圈张紧装置(专利)张力一致性好,保证网格圈 运转平稳。
- 负压控制采用闭环控制方法,保证纺纱过程压力稳 定。(选配)
- 自动刮棉装置,提高设备自动化程度。(选配)

#### Structre Fearures

- Four-roller system, lattice apron are of positive drive.
- Negative pressure system adopt main blower with general air duct and filter net to avoid dirtying workshop.
- Modular design, 6 spindles or 8 spindles in one unit.
- Well-designed negative pressure distribution ensures consistency of airflow at each suction nozzle.
- The optimization designed suction nozzle on profiled tube, good for fiber compact.
- Inverter control for both energy-saving and pressure adjusting for different yarn count spinning demands.
- Smoothly moving of the yarn is guaranteed by tension device of the lattice apron (patent product of H-FANG).
- Closed-loop control on negative pressure guarantee stable pressure during spinning. (For option)
- Auto-cotton stripping device available for option. (For option)



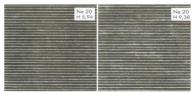


## HFJ紧密纺装置对纱线及后道工序的改善

- 纯棉3毫米毛羽减少60%以上。
- 相同纺纱工艺,提高纱线强力5-15%。
- 降低CV%,提高纤维利用率。
- 在同普通环锭纺相同强力的条件下可以提高细纱生产效率。
- 纱线捻度可降低5-10%,同时保持相同的纱线强力。
- 提高条干均匀度。
- 整经断头减少30%。
- 提高纱线耐磨性,减少织造断头。
- 采用紧密赛络纺时烧毛工艺可以省略。
- 减少针织纱起毛起球,提高织物上染率。
- 提高生产率,尤其是在喷气织机上生产高密度织物时。
- 色织面料织物纹理更清晰, 经编条纹织物尤为如此。
- 弥补面料在后道免烫工艺中损失掉的强力。
- 制成的面料更光滑、柔软。
- 改善工作条件,减少车间飞花。



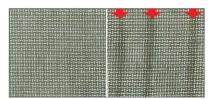
紧密纱线和环锭纱对比图片 Compact Spun yarn vs.ring spun yarn



紧密纱线和环锭纱摇里板对比图片 Blankboard comparison : compact vs.non compact

## Benefits from HFJ compact spinning

- For cotton yarn, over 60% 3mm hairiness can be reduced.
- Under the same process and working condition, the tenacity of compact spun yarn is 5%-15% higher than ring spun yarn.
- Decrease CV%, increase fibre availability.
- Higher productivity when producing same tenacity yarn than conventional spun
- Yarn twist can be reduced by 5-10% while maintaining same yarn strength.
- Better evenness of diameter and hairiness.
- 30% reduction in yarn breakage in warping process.
- Better abrasion resistance of yarn leading to fewer ends breaks in weaving.
- Singeing can be omitted in case of compact siro-spinning.
- · Reduced pilling and better dye uptake in fabric.
- Increase productivity, especially for high density fabrics produced in air jet looms.
- More clear in fabric texture for yarn dyed fabric, especially for warp-striped fabric.
- Maintain tenacity which lost during no-iron
- More smooth and soft in fabric.
- Improve working conditions, reduce flyings in workshop.



紧密织物与环锭布面疵点对比图片 Fabrics made of compact spun vs. made of ring spun yarn

## 纱线环境要求

为使紧密纺成纱质量达到最佳效果,必须具备如下条件:

- 1、采用紧密纺装置的细纱机建议配备巡回清洁器
- 2、纺纱车间的温、湿度和空气含尘浓度要求:
- a、温度:全年25-30℃
- b、相对湿度: 55%±5℃(棉)

78%±5℃ (毛)

c、空气含尘浓 < 3mg/m3

## Baaic Requirements for getting good result from compact spinning

- 1. Install traveling clearner.
- 2. Control temperature, humidity and dust content of the air in the workshop:
- a. Temperature:25-30°C constant in all year long
- b. Relative humidity:55% ±5°C for cotton

75%±5°C for worsted

c. Dust content of the air: < 3mg/m3





#### 长车配套和改造案例介绍

• K44-1008

#### Long frame compact conversion solution

0		
<ul> <li>JWF1562JM—1200</li> </ul>	紧密纺、紧密赛络纺	
<ul> <li>JWF1536B-1008</li> </ul>	紧密纺、紧密赛络纺	
<ul> <li>JWF1530—1008</li> </ul>	紧密纺、紧密赛络纺	
<ul> <li>JWF1520—1104</li> </ul>	紧密纺、紧密赛络纺	
• EJM178-1008	紧密纺、紧密赛络纺	
<ul> <li>ZJ1598—1008</li> </ul>	紧密纺、紧密赛络纺	
<ul> <li>Zinser351—1680</li> </ul>	紧密纺、紧密赛络纺	
<ul> <li>LR9/AXL-1824</li> </ul>	紧密纺、紧密赛络纺	
<ul> <li>Zinser71—1200</li> </ul>	紧密纺、紧密赛络纺	
<ul> <li>LR60/AX-1008</li> </ul>	紧密纺、紧密赛络纺	
<ul> <li>RX220_ RX240—1008</li> </ul>	紧密纺、紧密赛络纺	
• RY5-960	紧密纺、紧密赛络纺	
<ul> <li>Zinser360—1008</li> </ul>	紧密纺、紧密赛络纺	
• G33-1200	紧密纺、紧密赛络纺	
• G32-1440	紧密纺、紧密赛络纺	

紧密纺、紧密赛络纺





#### 长车主要技术特征

- 大风机、双风道前后压差小,便于改造安装
- 高位风道、透明支管不影响挡车工视线和粗纱排列
- 负压在线自动检测报警系统预防欠压断头
- 自动刮棉装置确保纺纱过程压力稳定
- 在线监控系统便于集中监控纺纱过程(选配)
- 和国内各大主机厂紧密合作,新车配套实现无缝对接

#### Long frame main technical features

- Big fan, double ducts, small pressure difference, convenient for

- Big fan, double ducts, small pressure afference, convenient for convenient
   Overhead duct and transparent branch pipes, no block-off sight from bothsides, no change in rovings position
   Pressure auto-detecting/diaming system avoid yarn breakage due to low pressure
   Auto strip device ensure constant pressure during machine running On-the monitoring convenient for central monitoring the whole spinning process (for option)
   Can be applied within in from exupplies for new machine





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# H-FANG

#### 华方电子牵伸紧密纺

- 伺服控制紧密纺罗拉和前罗拉牵伸比,无极调速,传动 精准, 适用范围更广。
- 数据联网,中心实验室可远程操控。
- 工艺设置、故障查询等通过触摸屏操作,简单易懂。

#### H-fang compact conversion kit for E-draft

- The drafting ratio between compact roller and front bottom roller is controlled by servo control. It has stepless speed regulation and provides precise driving and wider application range.
- Production data networking inside enable remote control in
- Process setting, trouble shooting can be operated in touch screen, easy and convenient.



#### 下驱动紧密纺特点

- 优化传动副,提高过桥齿轮寿命:
- 前罗拉不需要更换,中段扭矩降低;
- 集聚罗拉和前罗拉牵伸比可调。

#### Separate drive compact spinning assembly feature

- Optimize drive parts and enhance the life of
- Not necessary to change front bottom roller
- The drafting proportion between front bottom roller and small roller is adjustable.





#### 企业荣誉 Honor of H-FANG









▲ 江苏省高密纺砂工程技术研究中心 JANGSI PROVINCE OF DOMPACT SPINING DIGNETING TID NOLOGY RESEARCH CRITER

▲ 國家大衛计划证书 NATIONAL TORON PROGRAM PROJEC



▲ 创新基金立项证书 MNOVATION FUND CE FOR NEW PROJECT







专利产品市场影响广泛 Patented products, wide market impact.

已获多项国家专利



纺织报跟踪报道 Got follow-up reports by CHINA TEXTILE NEWS

#### 国内典型客户 Valuable domestic customers

新疆东纯兴纺织有限公司  天虹 (中国) 投資有限公司 远转工生 江苏大生集团 苏州撒伦 华子集团 海票据目 伊生学期的 河北定廊的研有限公司 南宁级组构的积有限公司 市宁级组构的积有限公司 广东忠华



## 网格圈

我公司是网格圈国家行业标准的主要起 草单位之一、公司自行设计制造的网格圈织 造、定型、切割生产线能为客户提供多种高 品质的网格圈。

## Appron lattice

As one of principal members of the national apron-making standard, we have our own designed and made apron weaving heat setting and cutting line, can produce various sizes high quality aprons.

#### Technical parameters 主要技术参数

序号	型 号	规 格	织物	组织	透空率	适纺品种	
ਰਾਜ਼	空 亏	长x宽x目数	经丝	纬丝	迈父辛	<b>运</b> 功	
1	HF123-1	123x25x145	渗碳丝	尼龙丝	27%	中高支纯棉、纤维素纤维	
2	HF123-2	123x25x128	渗碳丝	尼龙丝	32%	中低支纯棉、纤维素纤维	
3	HF123-3	123x25x90	尼龙丝	尼龙丝	41%	毛 纺 、 半精 纺	
4	HF123-4	123x25x128	渗碳丝	渗碳丝	32%	中低支纯棉、化纤	
5	HF129-1	129x25x145	渗碳丝	尼龙丝	27%	中高支纯棉、纤维素纤维	
6	HF129-2	129x25x128	渗碳丝	尼龙丝	32%	中低支纯棉、纤维素纤维	
7	HF129-3	129×25×90	尼龙丝	尼龙丝	41%	半 精 纺	
8	HF129-4	129x25x128	渗碳丝	渗碳丝	32%	中低支纯棉、化纤	
9	HF130-1	130x25x140	尼龙丝	渗碳丝	28%	中高支纯棉、纤维素纤维	
10	HF130-2	130x25x128	渗碳丝	渗碳丝	32%	中低支纯棉、化纤	
11	HF130-3	130x25x128	尼龙丝	渗碳丝	32%	中低支纯棉、纤维素纤维	



## 采用耐磨性高的材料制造的紧密纺异型管耐磨工艺片可随着市场的变化及时 调整纺纱品种,降低投资成本,亦可作异型管硬化层磨损后的修复用。

Strips for profiled tube slots made of high wearable materials, to meet different demands as well as solution for worn out old profiled tubes.

- 规格多样化,便于不同工艺、纺纱品种选择
- 表面光洁耐磨,降低因异型管表面硬化产生的环境污染
- 安装调换简单方便,模具成型完全互换
- Multiple specifications for different processes and yarn type option
- Smooth and wearable surface, reduce environmental pollution cause during wearing out of old profiled tube surface
- Easy installation and change, formed die and high exchangeable



专利号: ZL201120281058.X

## 适合不同纺纱工艺需求的异型管

▶ 单纱 For single yarn

单槽双吸口紧密纺异形管

Double suction nozzles profiled tube component for single yarn



单槽双吸口紧密纺异形管 Double suction nozzles profiled tube component for single yarn



单槽双吸口紧密纺异形管 Double suction nozzles profiled tube component for single yarn Different profiled tube solutions for different spinning applications

▶ 赛络纱 For siro-spinning



双槽双吸口赛络纺异形管 Double suction nozzles profiled tube for siro spun yarn



三槽双吸口赛络纺异形管 Double suction nozzles profiled tube for siro spun yarn



导电型异型管 Conductive profiled tube

经优化设计的不同异形管适合各种纤维纯纺、混纺工艺。

Different optimum designed profiled tubes suitable for different types of fiber pure spinning or blended spinning.