



[高速弹力丝机]
HIGH SPEED DRAW TEXTURING MACHINE



无锡宏源机电科技股份有限公司

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企业介绍

Companies to introduce

宏源公司在高速弹力丝机技术领域享誉超过三十年,经过这三十多年生产DTY机的经验积累和持续发展,根据假捻变形技术发展趋势和市场需求,不断创新形成自己特有的技术,自主开发了系列高速弹力丝机:涤纶或锦纶、单丝道或双丝道、常规机型或特殊机型。每种产品都有自己的特有技术,我们为每个用户提供更优的个性化设计。我们的忠实客户已经享受着宏源公司高技术产品所带来的利润,同样我们的产品一定是你——新客户DTY生产的正确选择。

Hongyuan company has a good reputation of technology and know-how in the area of high speed draw texturing for over 30 years. As the result of the accumulated experience, continuous research and development in draw texturing, we have independently developed high speed draw texturing machine types based on the latest texturing technology trends and market requirements. Available are single or double density machines for polyester and polyamide and standard or special configuration for designing the texturing process in accordance with the yarn's requirement. We always offer our products to customers with optimum design and process solution, meaning that each kind of product use a unique technology. Our loyal customers have already been enjoying the profits which have been created by using Hongyuan high technology products. Our products are always the right choice for you DTY production.

主要特点

Main characteristics

■ 节能降耗

节能热箱。全封闭式的变形热箱减少了与外界的散热面积;采用新型节能保温材料,有效地防止热量损耗,节约能源。新结构的定型热箱的内部结构进行改进,同时增加内部保温材料,减少热箱用电。

单电机驱动假捻装置(可选用)。省去龙带及龙带张紧轮,一方面能够节能,降低噪音;另一方面无需更换龙带,减少了易损件龙带,为客户节约成本。

传动系统。单电机单轴直接传动的传动系统,各道罗拉分开传动,分别由不同的变频器来控制。机械结构更为紧凑简易,取消了同步带、涨紧轮、轴承座等中间传动环节,传动链最短,提高传动效率,降低能耗,结构简化,节约能源。

导丝盘罗拉。牵伸采用单锭单电机传动的导丝盘式牵伸装置,增加了对丝的握持性,保证牵伸时丝的牵伸比稳定可靠,提高纺丝质量;省掉了皮辊(或皮圈)这些用户的日常易损件,维护保养简单、使用成本降低;单锭单电机传动,节省了牵伸罗拉传动链系统的能耗,节能降耗。

Energy saving

Energy-Saving Heater. Use a new fully-enclosed primary heater and new structured secondary heater. Fully-enclosed heater can reduce the heat dissipation area. Improved the inside structure by increasing the internal thermal insulation material, reduce the energy consumption.

Individual motorized Friction Unit(optional). Replaces the traditional tangential belt and tension wheel to save energy, reduce noise level and minimize maintenance costs.

Driving System. The system applies a single-shaft and single-motor direct driving method, each shaft is driven separately, controlled by respective inverters. The mechanical structure is more compact and simple. It removes the transmission links such as timing belts, tension pulleys, bearing blocks, etc. Improve transmission efficiency, reduces energy consumption, simplifies design and saves on energy.

Godet feed unit. The Godet drafting device with single spindle-single motor driving, increase the yarn gripping force, make the drafting ratio more reliable, and improve the yarn quality. Removing the nip roller(or apron) these quick wear parts, easy for maintenance and lower the use cost; Single spindle-single motor driving, reduce the energy consumption of drafting roller drive chain system, save the energy.





■ 智能化程度高

机电一体化水平高,采用多电机分部传动和多电机控制技术,各档传动轴由各交流异步电动机分别传动、采用电感传感器测速反馈系统和变频技术进行精确控制,实现各电机速度之间的智能协调控制,速度控制精度高;采用新型的卷绕处理器,成品丝外观成形美观,退绕速度高;配在线张力装置,每锭一位的丝线张力传感器随时连续地监测假捻器下丝线张力(T2),保证丝线质量。

High intelligence of electrical control system

We feature state of the art electronic controls and electrical drivers, which allow convenient machine adjustments and reliable operation of the machines. The motor drive controls involve closed loop control systems, consisting of PLC, inverter and photoelectric sensors. The rotational speed precision is highly accurate. The machine can be equipped with the latest advanced take up processor to ensure a well formed package that unwinds equally well. The Online Tension System is optional, which can check&monitor the yarn tension T2 of each spindle, assuring the quality of the yarns.

■ 高速高效

单轴单电机直接传动的传动系统。各自传动相互独立,可以在一台机器上纺不同品种的丝,用户组织生产方便灵活,效率高。采用单轴单电机直接传动,取消了同步带及涨紧轮等中间机构,机器高速下稳定性更好。

单电机驱动假捻器(可选用)。机械结构简单,有效地降低假捻器组的噪音,提高纱线的假捻速度。

气动穿丝装置。采用无杆气缸传递的方式,自动执行生头操作。结构简单,运行阻力小,穿丝速度均匀平稳,减少人工穿丝时的快速运动而导致的断头,从而提高纱线的品质。特别是纺制细旦丝时,有效地保证每个锭位的穿丝质量,效果更明显。

High Speed and High efficiency

Single-roller and Single-motor direct driving system. Both machine sides can be operated independently, which enables the simultaneous processing of two different yarn. All shafts are driven directly which eliminates the gear box and drive belts, lowers of noise level and allows high speed production and product quality.

Individual motorized Friction unit(optional). Simplify the machine structure and reduce the noise level and allow high process speeds.

Pneumatic threading device. The smooth threading speed can reduce the yarn breaking during string up as compared with the traditional manual threading device, ensures the quality of each yarn end, especially for fine denier yarn processes.



■ 结构简单操作维修方便

传动系统采用单轴单电机直接传动的方式，取消了同步带及涨紧轮，减少平时对它们的更换和维护，减少维修时间和费用，逐步发展至免维护的状况。

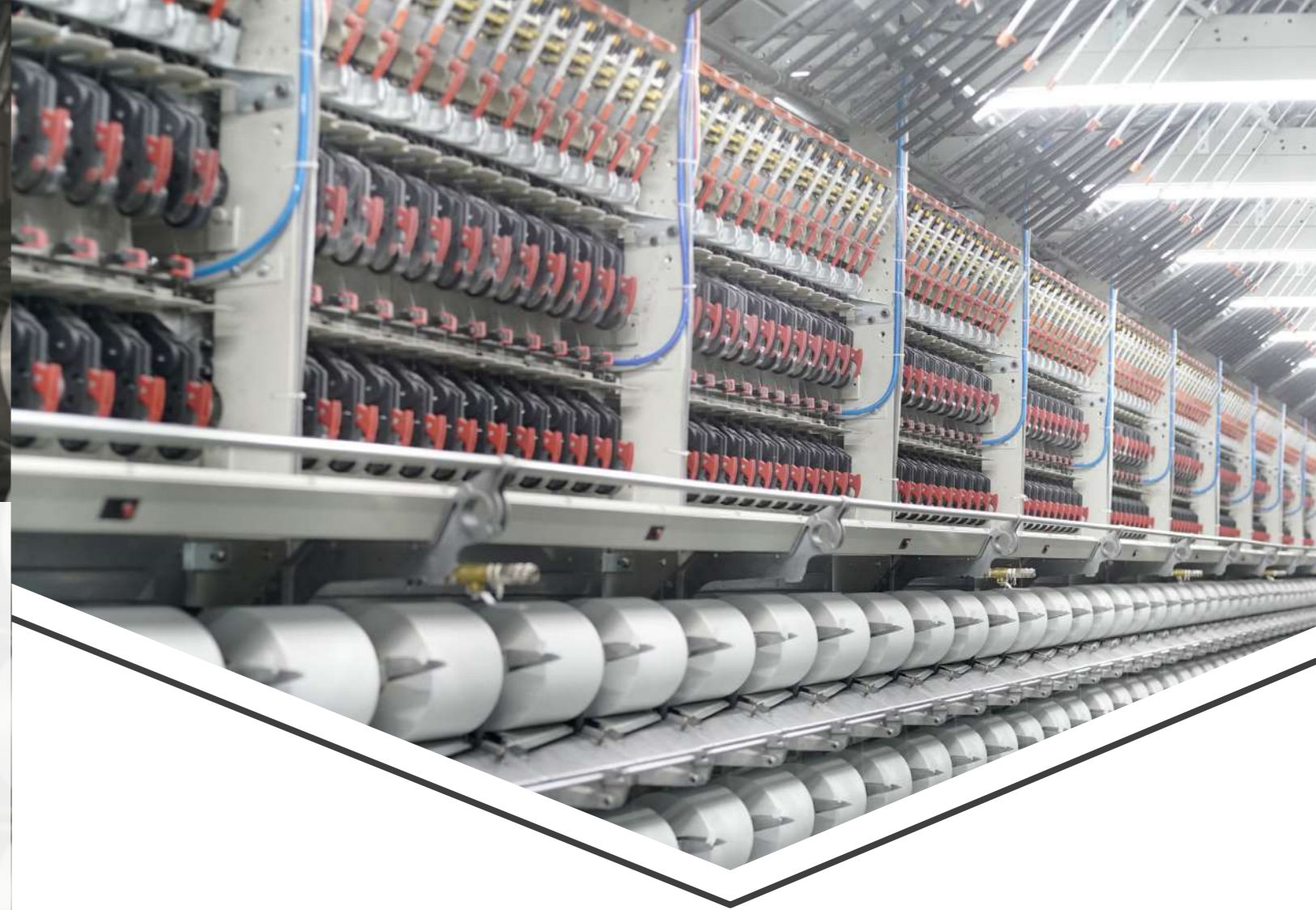
穿丝装置。自动执行生头动作，降低人的劳动强度，操作方便，且能在穿丝杆的任何位置停留，便于清洁维修。

导丝盘罗拉(可选用)。采用导丝盘罗拉牵伸，省去皮辊或皮圈，减少了零件的日常损耗，维护工作量少。在生产过程中，导丝盘罗拉由于是单独传动，不用全机停车，就可进行清洁维护工作，清洁保养时，其它锭位照常进行生产，减少了锭位的停车时间，节约了费用。

Easy operation and maintenance

Single-shaft and single-motor directly driving system abandons timing belts and tension pulleys, eliminates their normal replacement and maintenance, reduces maintenance time and costs, a further advance to the progressive development of maintenance-free condition.

Godet feed unit (Optional). Godet feed unit abandons apron or nip roller, reduces the maintenance and spare part cost. Meantime, the individual motor driven godet technology replacing the feed shafts in the texturing zone allows for considerably higher process speeds and less downtimes.



■ 纺丝质量好

传动系统采用单轴单电机直接传动的方式。W4的单层独立传动设计，使得卷绕张力的调整更加灵活，有利于卷绕成型的改善，工艺参数每层可以各自独立设定，在卷绕张力上可以根据实际情况进行微调，拓宽了假捻变形工艺的调整范围。

配最新型的卷绕处理器，保证成品丝的卷装质量。

配在线张力装置。实时连续地对丝线张力监测，严密监测丝条质量，自动对丝条进行质量分级。

导丝盘罗拉(可选用)。在生产过程中不会产生由于皮辊或皮圈等零件的磨损而引起丝品质的下降，丝的品质始终保持同一水平，提高了丝的质量，特别是细旦丝效果更明显。

Nice texturing process quality

The driving system uses a single-shaft and single-motor direct driving method. W4, take up shafts are in single-independent transmission design, allowing a more flexible adjustment of winding tension, helpful to the improvement of package shape, parameters can be independently set for each deck, the winding tension can be fine-tuned according to the actual situation which broadens the false-twist texturing process adjustment range.

Advanced take up processor. Advanced take up processor for better winding performance and yarn quality.

Online tension system. Real-time monitoring of continuous tension on the thread; close monitoring of filament quality; and automatically grading the quality of the produced DTY.

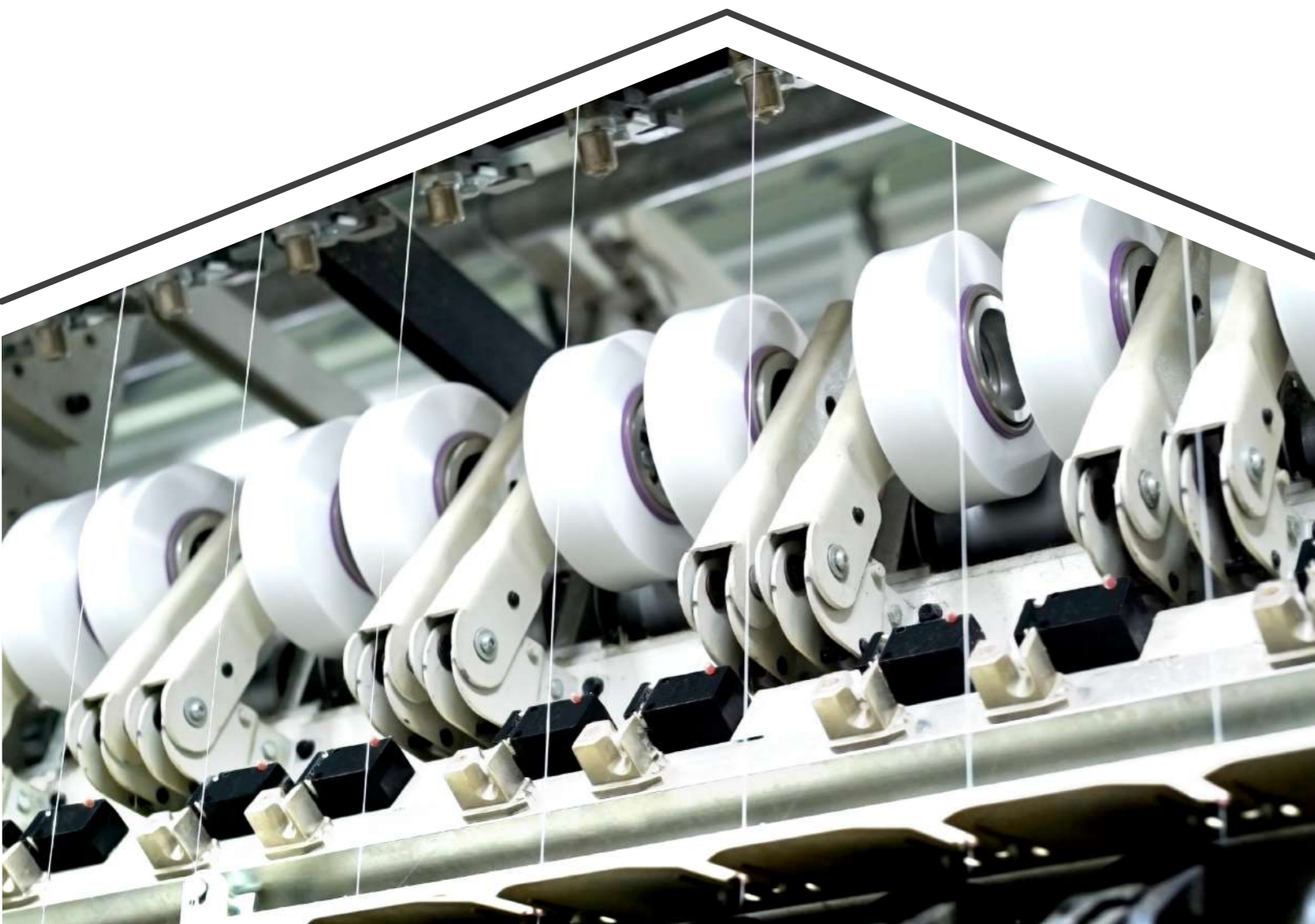
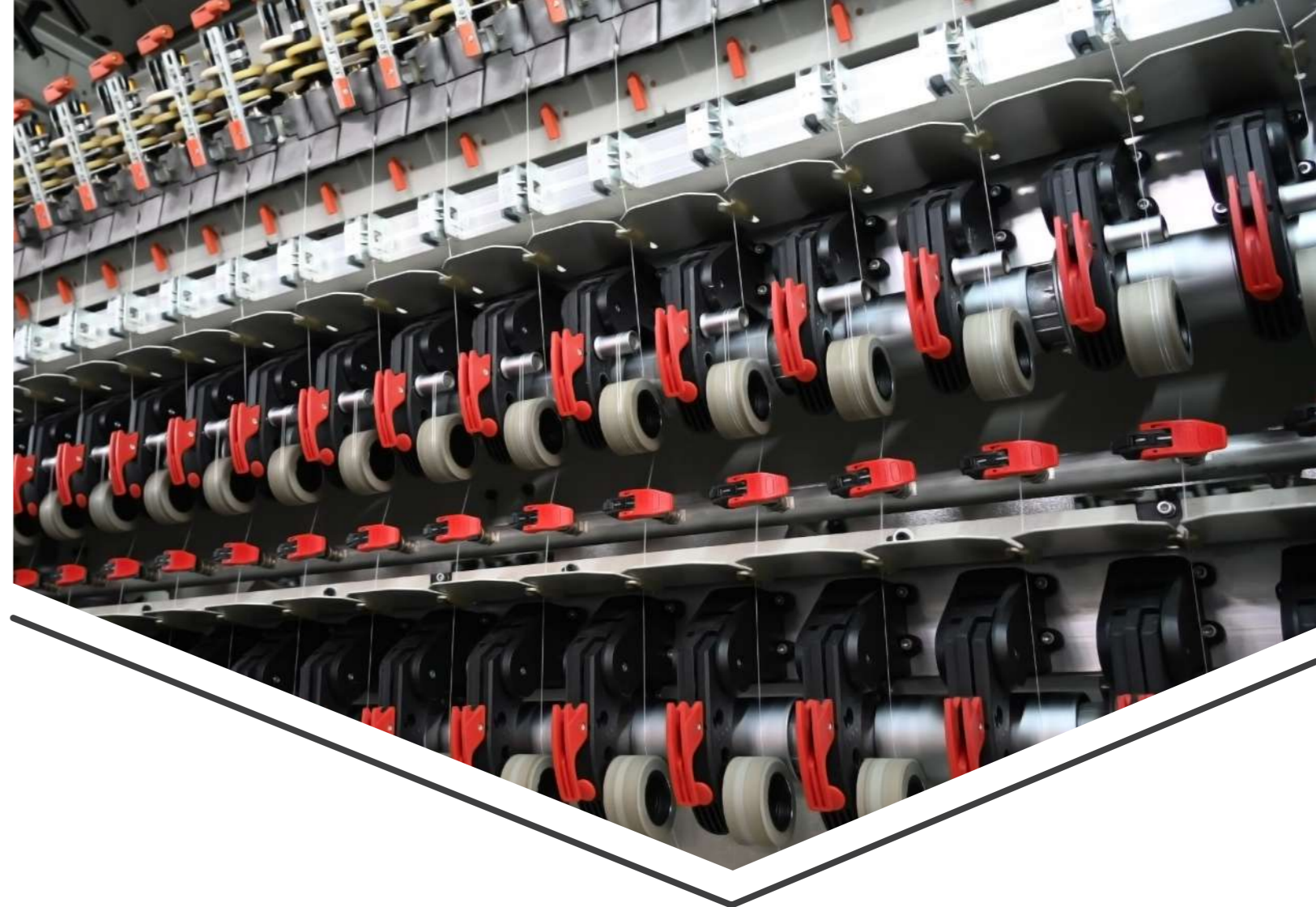
Godet Feed unit(optional) The godet technology avoids yarn quality losses caused by apron or nip roller abrasion during the yarn texturing process, enables the production of yarns of the highest quality, especially suitable for fine denier yarns.

■ 模块化、多功能的特性

随着对纺织面料品种需求的不断扩大，各类特种纤维，特殊加工工艺，特殊风格的纱线应运而生，为了满足这类纱线加工的需求，用户可以根据自己的需要，选用不同配置组成各种功能性机型，采用新的加工方法，使合成纤维具有天然纤维的各种特性。并丝装置的选用;不同位置辅助罗拉的选用;氨纶装置的选用等等各种组合。通过增加特殊装置，拓宽纺丝品种的数量，通过关闭该装置，可以生产常规品种，实现一机多用。通过灵活的选择配置，组成不同的机型，满足各种特性的差别化纤维的生产，满足用户对高附加值产品的追求。

Modular and multifunctional features

With the growing demand for varieties of textile fabrics, all kinds of special fiber, special processing technology, the special style of yarn, in order to meet the requirements of this yarn processing, the user can according to your needs, choose different configuration of various functional models, use the new processing method, the synthetic fiber has the properties of natural fibers. The selection of wire drawing device; The selection of auxiliary rollers in different positions; Spandex device selection and so on all kinds of combination. The number of spinning varieties can be expanded by increasing the special equipment, and the conventional varieties can be produced by closing the equipment. Through flexible selection and configuration, different models are formed to meet the different characteristics of the production of differentiated fiber, to meet the user's pursuit of high value-added products.



■ 安装条件

为了保证机器正常运转，保证加工产品的质量，DTY生产车间应符合下列条件：

- 1、电网电压：380V ± 10%，三相 频率：50Hz ± 1Hz，具有良好的接地系统。
- 2、压缩空气：温度25℃ ± 5℃，稳定操作压力为0.6Mpa，杂质 < 0.2 μm，残留油量 < 0.2ppm，相对湿度 < 30%，常压露点 ≤ 4℃，(符合这些要求的相关设备不包括在本机器的供货范围内)。
- 3、使用环境：温度：24℃ ± 2℃ 相对湿度：65% ± 5%
- 4、地基水泥厚度 ≥ 150mm，安装机器的地平高低误差不得超过 0 ~ -20毫米。

Recommended plant conditions:

In order to give the machine the best running conditions and to achieve optimum quality products, a DTY plant should have the following conditions:

- 1.Power: 380V ± 10%, three phase; 50Hz ± 1; good ground system (other voltage optional)
- 2.Compressed air: Temperature: 25 °C ± 5 °C ,pressure: 0.6Mpa; impurity < 0.2 μm, residual oil < 0.2ppm, humidity < 30 %, Dew-point temperature ≤ 4 °C (This equipment not included with the machine)
- 3.Environment: Temperature: 24 ° ± 2 °; Humidity: 65% ± 5%
- 4.Foundation concrete thickness ≥ 150mm; level maximum 15mm.



※ 主要技术参数 Main technical data

		HY-6T	HY-6(J)	HY-6T(LC)
机器规格 specifications	最高机械速度(m/min) Max mechanical speed	1100		
	加捻方式 Texturing friction unit	叠盘式 Disc		
	假捻装置最高转速(rpm) Max friction unit speed	18000		
	节数(节) Number of section	10/11/12/13/14/15/16		
	每节锭数(锭) Spindles per section	24		
	每台锭数(锭) Spindles per machine	240/264/288/312/336/360/384		
锭距(mm) Spindles gauge	110			
机器外形 Appearance	机器总长(12节)(mm) Total length(12 sections)	22582	21970	22582
	机器总高(mm) Total height (mm)	5600	5532	5600
	机器总宽(不包括原丝架)(mm) Total width (ex Creel) (mm)	4764		
适用范围 Application range	加工纤度范围(dtex) Product Range	55-220	22~110	55-220
热箱Heater	第一热箱长度(mm) Primary heater length	2000		
	第二热箱长度(mm) Secondary heater length	1460	/	1460
冷轨 Cooling plate	冷轨长度(mm) Cooling plate length	1100		
装机功率 Power(kW)	主传动(288锭) Main drive	109	95	125.3
	辅助传动(288锭) Auxiliary drive	15.6	15.3	15.6
	第一热箱(288锭) Primary heater	81.6		
	第二热箱(288锭) Secondary heater	28.8	/	28.8
	总装机功率(288锭) Total power	235	192	251.5
卷装规格 Take-up package	最大卷装规格(mm) Max package dimension	φ 250 × 250		
	卷装重量:双锥边75° (kg) Biconical package weight	5		
	卷装容量:双锥边75°(dm³) Biconical package volume	10.1		
原丝规格 Feed package	原丝品种 Material of feed package	聚酯 Polyester	聚酰胺 Polyamide	聚酯 Polyester 氨纶 Spandex
	原丝最大外形(mm) Max size of feed package	φ 435 × 250		

HY-6T系列高速弹力丝机

HY-6T HIGH SPEED DRAW TEXTURING MACHINE SERIES

基于节能降耗、操作维护方便及提高纺丝质量的理念设计了HY-6T型高速弹力丝机。它采用导丝盘罗拉牵伸丝线,省掉了皮辊或皮圈这些用户的日常易损件,降低用户的日常使用成本;省去了罗拉传动系统(包括同步带及同步带轮及张紧轮)等的维护,用户维护保养简单,维护工作量少。在生产过程中也就不会产生由于皮辊或皮圈等零件的磨损而引起丝品质的下降,丝的品质始终保持同一水平,提高了丝的质量。由于使用了导丝盘罗拉,省去了罗拉传动系统(包括同步带及同步带轮及张紧轮)的能耗,节能效果明显。

HY-6T model texturing machine is designed based on energy-saving, easy maintenance and improving yarn quality. With Godet feed unit, Removing the Apron(or nip roller) these quick wear parts, also reducing the roller drive system(including timing belt、pulley and tension pulleys),easy for maintenance, lower the use cost and reduce energy consumption;The godet technology avoids yarn quality losses caused by apron or nip roller abrasion during the yarn texturing process, enables the production of yarns of the highest quality, especially suitable for fine denier yarns.



※ 单丝道系列主要技术参数 Main technical data

		HY-7H(M)	HY-7(H)	HY-7(LC)	HY-7Pro
机器规格 Specifications	最高机械速度(m/min) Max mechanical speed	1100			
	加捻方式 Texturing friction unit	叠盘式 Disc			
	假捻装置最高转速(rpm) Max friction unit speed	18000			
	节数(节) Number of section	10/11/12/13/14/15			
	每节锭数(锭) Spindles per section	24			
	每合锭数(锭) Spindles per machine	240/264/288/312/336/360			
	锭距(mm)Spindles gauge	110			
机器外形 Appearance	机器总长(mm)(13节) Total length (13 sections)	23413		24022	23413
	机器总高(mm) Total height	4915	5287	5600	5287
	机器总宽(不包括原丝架)(mm) Total width (ex Creel)	4764			
适用范围 Application range	加工纤度范围 (dtex) Product range	167 ~ 330		55 ~ 220	
热箱Heater	第一热箱长度(mm) Primary heater length	2500		2000	
	第二热箱长度(mm) Secondary heater length	1460			
冷轨 Cooling plate	冷轨长度 (mm) Cooling plate length	2100		1100	
装机功率 Power (kW)	主传动 Main drive (312锭)	126		153.5	128.5
	辅助传动 Auxiliary drive (312锭)	19			
	第一热箱 Primary heater (312锭)	104		88.4	
	第二热箱 secondary heater (312锭)	28.8			
卷装规格 Take-up package	总装机功率 Total power (312锭)	280.2	264.6	292	267
	最大卷装规格(mm) Max package dimension	φ 250 × 250			
	卷装重量:双锥边75° (kg) Biconical package weight	5			
原丝规格 Feed package	卷装容量: 双锥边75°(dm³) Biconical package volume	10.1			
	原丝品种 Material of feed package	聚酯 Polyester			
	原丝最大外形(mm) Max size of feed package	φ 435 × 250			

HY-7系列高速弹力丝机

HY-7 HIGH SPEED DRAW TEXTURING MACHINE SERIES

HY-7型高速弹力丝机采用单轴单电机传动，机构简单，维护方便；采用全封闭的上热箱，节能降耗。

HY-7DV、HY-7HLV和HY-7S型高速弹力丝机用于合股丝、无捻丝的生产，也可用于单丝道S捻或Z捻的加工，A、B两面各自独立传动控制，分面运行，可分别加工不同品种、不同规格的产品，以提高其使用价值，灵活应对不断变化的市场需求。HY-7DV、HY-7HLV用于涤纶丝的生产，HY-7S用于锦纶丝的生产

HY-7(LC)型高速弹力丝机，可一步法生产涤氨复合丝，扩大机器使用范围。

HY-7 model texturing machine adopts single-roller and single-motor direct driving system, and the fully-enclosed primary heater, including the features of simple structure, easy maintenance and energy-saving.

HY-7DV HY-7HLV and HY-7S are used for ply-yarns, de-torque yarns, also can produce S twist and Z twist yarn. For these two types, A and B side can be operated completely independently, enable to produce high quality, multi-type, multi-specification yarns to meet the requirement of a most dynamic market. HY-7DV HY-7HLV is used for polyester yarn and HY-7S for polyamide yarns.

HY-7(LC) can produce polyester with Spandex covering yarn, expanding the machine usage.



※ 双丝道系列主要技术参数 Main technical data

		HY-7DV	HY-7HLV	HY-7S2(W2X)
机器规格 Specifications	最高机械速度(m/min) Max mechanical speed	1100		
	加捻方式 Texturing friction unit	双丝道叠盘式 Double density Disc	上下叠盘式 Double density Disc	双丝道叠盘式 Double density Disc
	假捻装置最高转速(rpm) Max friction unit speed	18000		
	节数(节) Number of section	10/11/12/13		
	每节锭数(锭) Spindles per section	24		
	每台锭数(锭) Spindles per machine	240/264/288/312		
	锭距(mm)Spindles gauge	110		
机器外形 Appearance	机器总长(mm)(12节) Total length (12 sections)	21940	22140	21914
	机器总高(mm) Total height	5765	5895	5500
	机器总宽(不包括原丝架)(mm) Total width (ex Creel)	4764		
适用范围 Application range	加工纤度范围(dtex) Product range	(55 ~ 167) x2		(22 ~ 110) x2
热箱Heater	第一热箱长度(mm) Primary heater length	2000		
	第二热箱长度(mm) Secondary heater length	1460	/	
冷轨 Cooling plate	冷轨长度(mm) Cooling plate length	260+900	1100	260+815
装机功率 Power (kW)	主传动 Main drive (288锭)	122.2	191.9	111.2
	辅助传动 Auxiliary drive (288锭)	23.1	23.3	16
	第一热箱 Primary heater (288锭)	96		
	第二热箱 secondary heater (288锭)	36		/
	总装机功率 Total power (288锭)	277.3	347	223.2
卷装规格 Take-up package	最大卷装规格(mm) Max package dimension	φ 250 × 250		
	卷装重量:双锥边75° (kg) Biconical package weight	5		
	卷装容量:双锥边75°(dm³) Biconical package volume	10.1		
原丝规格 Feed package	原丝品种 Material of feed package	聚酯 Polyester		聚酰胺 Polyamide
	原丝最大外形(mm) Max size of feed package	φ 435 × 250		



※ 主要技术参数 Main technical data

		HY-12M	HY-12T	HY-12T (W2X)	HY-12T(LC)
机器规格 Specification	最高机械速度(m/min) Max mechanical speed	1200			
	加捻方式 Texturing friction unit	叠盘式 Disc			
	假捻装置最高转速(rpm) Max friction unit speed	18000			
	节数(节) Number of section	10/11/12/13			
	每节锭数(锭) Spindles per section	24			
	每台锭数(锭) Spindles per machine	240/264/288/312			
	锭距(mm) Spindles gauge	110			
机器外形 Appearance	机器总长(mm)(12节) Total length(12 sections)	21898			
	机器总高(mm) Total height	4224	5258	5718	5961
	机器总宽(不包括原丝架)(mm) Total width (ex Creel)	5242	4764		
适用范围 Application Range	加工纤度范围 (dtex) Product range	77 ~ 220dtex	22 ~ 110dtex		
热箱 Heater	第一热箱长度(mm) Primary heater length	2000			
冷轨 Cooling plate	冷轨长度 (mm) Cooling plate length	1500	1100		
装机功率 Power (kW)	主传动 Main drive (288锭)	79.4	79.4	90.4	96.4
	辅助传动 Auxiliary drive (288锭)	16			
	第一热箱 Primary heater (288锭)	81.6			
	总装机功率 Total power (288锭)	177	177	188	194
卷装规格 Take-up package		φ 250 × 250			
		5			
		10.1			
原丝规格 Feed package		聚酰胺 Polyamide			
		φ 435 × 250			

HY-12系列高速弹力丝机

HY-12 HIGH SPEED DRAW TEXTURING MACHINE SERIES

HY-12系列高速弹力丝机是一种用于将聚酰胺(锦纶)预取向丝进行假捻变形的设备, 适纺范围为22~220dtex, 最高机械速度为1200m/min, 可加工不同品种、纤度及质量的丝。

利用假捻变形机, 独创性布置氨纶装置的HY-12T(LC)高速弹力丝机, 可一步法生产锦氨复合丝, 特别是细旦氨纶丝的生产优势突出。

HY-12 high speed draw texturing machine series is a single heater machine for the production of polyamide stretch yarn. The denier range is 20~220dtex, Maximum Speed is 1200m/min.

HY-12V(LC) machine with unique spandex device enables customer to produce polyamide and spandex ply-yarns, is especially suitable for fine denier spandex yarn plying process.



HY—9系列全自动落筒高速弹力丝机 HY-9 HIGH SPEED DRAW TEXTURING MACHINE

机器外型尺寸(长x宽x高): 24190x10960x5790
Machine sizes(LxWxH):24190x10960x5790 mm

■ 高速高效

整机384锭，锭位多，产量大。摩擦假捻装置、电子精密数码卷绕等关键部件采用单锭传动技术，速度高、噪音低，可单锭停止维修，机器效率高。

■ 自动化、智能化程度高

自动实现空筒满筒交换与重新生头，连续稳定生产，定长定重准确，落筒成功率高，减少操作用工及劳动强度。单锭电子精密数码卷绕，成型优良。智能化人机交互界面控制，工艺管理方便。

■ 节能环保

全封闭的节能热箱及纳米保温材料，实现节能降耗；单锭精密卷绕，无冲击，噪音低，绿色环保；单电机假捻装置，降低噪音，改善工作环境。

High Speed High Efficiency

The machine has 384 spindles, multi-spindles and big capacity. Individual motorizing friction units and Individual precision take-up, high speed machine running and lower noise, which is able to stop and maintenance for each spindle.

High technology of electrical control system and automatical system

Applies Auto-Doffing system, when the bobbin reaches the set-value it will doffing, change bobbin and re-threading automatically. The length-set and weight-set is accurate, the success rate of auto-doffing is high, the working strength and working intensity are reduced.

Applies Hongyuan advanced individual precision take-up technology, nice take-up package.

Energy conservation and environmental protection

Fully-enclosed primary heater can reduce the heat dissipation area and increasing the internal thermal insulation material, reduce the energy consumption; Individual precision take-up system applies individual motor driving for each position with lower noise, energy saving and shock-free feature.



HY—10系列多锭位高速弹力丝机 HY-10 HIGH SPEED DRAW TEXTURING MACHINE

机器外型尺寸(长x宽x高): 26368x10834 x5995 (配固定原丝架) (576锭)
Machine sizes(LxWxH):26368x10834x5995 mm (including stationary creel)

■ 效率高

采用专有的多锭数新技术。单节由双面24个锭位扩展到48个锭位，整机锭数576锭，机器产能翻倍、效率翻倍。

■ 功能多

一机多能，功能非常强大。可进行S+Z捻复合丝的生产；可进行异纤、异形、异品种丝之间的复合纺；可进行多个品种的单股丝生产，一台机可同时纺4个不同品种的单股丝。

■ 节能降耗

采用单轴单电机传动、全封闭热箱及多锭数共用一个单元等设计，达到节能的效果，有效地降低了机器能耗。

■ 操作维护方便

机器锭位集中度高，操作人员在一个操作通道上就可以对左右两侧的所有卷绕装置进行落筒，操作管理方便，节省人工。

High efficiency

Equip multi-spindles technology. Each section has 48 spindles instead of normal 24 spindles, the standard machine has minimum 10 section 576 spindles, which enables double production output and double efficiency.

Multi-function

The machine is able to produce double or multiple-ply and fancy yarns which draw ratio and D/Y ratio can be set differently and separately. The machine is also able to produce different single yarn at the same time, maximum 4 different single yarn at the same time.

Energy saving

The machine adopts single-roller and single-motor direct driving system, the fully-closed primary heater and multi-spindles technology, which can reduce the energy consumption.

Easy operation and maintenance

One operator can operate double sides of the machine at one operation channel, easy maintenance and saving labor.