

[www.jwell.cn](http://www.jwell.cn)

品质卓越 完美如一



医用高分子材料和  
医疗耗材生产线

**MEDICAL**   
POLYMER & CONSUMABLES  
**EQUIPMENT** 



**JWELL**  
info@jwell.cn  
sales@jwell.cn



A Global Supplier of Complete Solutions on Extrusion Technology

金纬机械—全球挤出技术 整体解决方案供应商

10+ 驻海外办事处 Overseas offices  
580+ 技术研发&工程师 R&D Engineer  
3,000+ 金纬机械员工人数 Jwell Employee  
8+ 个制造基地 Manufacture Bases  
500+ 独家专利技术 Patents  
1,000,000m<sup>2</sup>+ 工厂面积 Plant Area



80年代初

金海螺第一代螺杆研制成功  
In the early 1980s, the first generation screw of JINHAILUO was successfully developed

1997

上海金纬机械  
Shanghai JWELL Machinery

2008

苏州金纬机械  
Suzhou JWELL Machinery

2012

常州金纬机械  
Changzhou JWELL Machinery

2018

贝克威尔 (泰国)  
Bkwell (Thailand)

2019

浙江金纬智能装备  
Zhejiang JWELL Machinery

2020

金纬公司业绩突破50亿人民币  
Jwell's annual sales exceeded CNY 5 billion

2021

滁州金纬机械  
Chuzhou JWELL Machinery

2022

连续11年荣获中国塑料机械挤出行业排名首位  
Ranked first in China's plastic machinery extrusion industry for 11 consecutive years

We Know Extrusion

JWELL MACHINERY CO., LTD.

## MEDICAL POLYMER MATERIAL EQUIPMENT

金纬机械，1997年成立于上海，中国塑料机械工业协会副会长单位，全球挤出技术整体解决方案供应商。经过26年的稳健发展，先后在上海、舟山、苏州、常州、海宁、泰国以及滁州、全椒等地共建立了八个生产基地及30多家专业公司，总占地面积超千亩，年产能近3000台套挤出装备。

金纬医疗健康投资事业部是金纬机械结合多年高分子材料加工经验，在医疗健康领域的重要部门，致力于医用高分子材料和医疗耗材生产线的投资、合作和研发与制造。

用心持久，持续创新，研发全球中高端用户所需的医用高分子材料精密设备。严谨的设计、严格的标准化制造过程、完善的售后服务保障体系，为用户提供可靠、高效、品质卓越的生产设备和贴心的服务，服务于人类的健康需求！



“品质卓越 完美如一”

是金纬公司的质量方针，是全体员工努力的方向。

“诚实待人”

是我们铸就“百年金纬”的核心理念。

董事长：何海潮

Email: he@jwell.cn

JWELL Machinery, founded in Shanghai in 1997, is the Chinese Plastics Machinery Industry Association vice-chairman member and a global extrusion technology solution provider. After 26 years steady development, eight production bases and more than 30 professional branch companies have been established in Shanghai, Zhoushan, Suzhou, Changzhou, Haining, Thailand, Chuzhou, Quanjiao and other places, which cover a total area of over 1,000 acres of land totally. The production capacity is approaching 3000 sets of extrusion equipment.

JWELL Medical and Health Investment Division is an important department of JWELL Machinery in the medical and health field combined with years of experience in polymer material processing. It is committed to investment, cooperation, R&D and manufacturing of medical polymer materials production lines.

With persistence and continuous innovation, we will keep on developing precision equipment for medical polymer materials required by high-end users around the world. Rigorous design, strict standardized manufacturing process, and perfect after-sales service guarantee system provide users with reliable, efficient, high-quality production equipment and considerate services to serve the human health needs.

"Excellent Quality, Perfect All" is Jwell's quality policy, and all staff's working direction.

"Be honest" is the core idea for us to contribute

"Century JWELL"

President: He Haichao Mobile/WhatsApp +86 13601628188





医用包装材料生产线  
Medical Packaging Material Extrusion Line

金纬公司推出的双螺杆免干燥排气型PET医用包装材料生产线具有低能耗、工艺简单，设备使用维护方便的特点。其特有的螺杆组合结构有效的减少了PET树脂的粘度降，对称式薄壁型辊筒提高了冷却效率同时提升了产能和片材品质，多组分喂料装置可合理的控制新料、回料、色母等的比例。

所生产的片材可用于医用包装等领域，比如临床手术器械包装，制药业包装，周转托盘，骨科和眼科器械包装等。

JWELL develops the parallel twin screw extrusion line for PET medical packaging sheet, this line equipped with degassing system, and no need drying and crystallizing unit. The extrusion line has the properties of low energy consumption, simple production process and easy maintenance. The segmented screw structure can reduce the viscosity loss of PET resin, the symmetrical and thin-wall calender roller highten the cooling effect and improve the capacity and sheet quality. Multi components dosing feeder can control the percentage of virgin material, recycling material and master batch precisely. The sheet is widely used for medical packaging industry. For example: Packaging for Clinic surgery, Pharmaceutical, Handling trays, Orthopedics, Ophthalmology and so on.



主要技术参数 Main technical parameter

机型	挤出机规格	制品厚度	主电机功率	最大挤出产量
Model	Extruder model	Products thickness(mm)	Main motor power(kw)	Max extrusion Capacity(kg/h)
共挤线 Multi layer	JWE75/40+JWE52/40-1000	0.15-1.5	132/15	500-600
单层线 Single layer	JWE75/40-1000	0.15-1.5	160	450-550
高效 Highly-efficient	JWE95/44+JWE65/44-1500	0.15-1.5	250/75	1000-1200

备注：以上规格参数如有变更，恕不另行通知。Note:The specifications are subject to change without prior notice.





PVC/EVA医用软袋膜生产线  
PVC/EVA Medical Film Extrusion Line

PVC软袋是针对玻璃瓶的缺点研制的，具有良好的耐化学药品性、较好的耐温性能，其制品主要应用于：血袋、尿袋、引流袋等领域。

非PVC软袋是继玻璃瓶、塑料瓶、PVC软袋后发展起来的输液袋包装形式，是在PVC的基础上改性而成，具有PVC软袋的优点，同时又克服了PVC软袋材料毒性方面的缺点，并且在降低水蒸气和气体渗透方面也有了较大提高。非PVC输液软袋采用密闭式输液，自身具有平衡压力，无需引入外界空气便可维持人体循环的密闭系统，避免了空气污染的风险，正逐渐成为大输液的包装趋势。非PVC软袋输液耐温性能良好，所以运输可不受季节的限制，也不必担心剧烈震荡给产品带来损伤，因产品具有抗跌落特点，可从一定高度下投，适用于救灾和急救。

PVC soft bag is developed overcoming the shortcomings of glass bottles, with good chemical resistance, good temperature resistance performance. Main application: blood bag, urine bag, drainage bag and other fields.

Non-PVC soft infusion bag packaging is developed after glass bottle, plastic bottle and PVC soft bag. It is modified on the basis of PVC. It has the advantages of PVC soft bag and overcomes the disadvantages of PVC soft bag. Non-PVC infusion bag adopts closed infusion, with balanced pressure, and can maintain human body without introducing external air.The circulation of the closed system, to avoid the risk of air pollution, is gradually becoming a infusion packaging trend.Non-PVC soft infusion bag has good temperature resistance, not any seasonal restrictions for transport and also no worry about severe shock to the product during transportation. Since the product has anti-drop characteristics, can be dropped from a certain height, suitable for disaster relief and first aid.



主要技术参数 Main technical parameters

机型 Model	JWS45/28-1500	JWS90/28、JWS120/28-1500
适用原料 Material	PVC、EVA	PVC、EVA
制品宽度 Products width	400mm	900mm
制品厚度 Products thickness	0.12-0.35mm	0.12-0.35mm
挤出机规格 Extruder specification	JWS45/28	JWS90/28
设计挤出产量 Designed extrusion output	20kg/h	100-250kg/h

备注：以上规格参数如有变更，恕不另行通知。Note:The specifications are subject to change without prior notice.

生产线特点 Production line features

- ◎生产线采用德国西门子人机界面及西门子电脑控制操作系统，可实现设备的精确控制和人性化操作。
- ◎压光成型机采用超镜面镀铬辊筒，并配备伺服电机驱动，有效保证制品精度要求。
- ◎软质薄膜专用收卷机，在保证成品卷材边缘齐整度的同时，更防止成品产生起皱、鼓筋、拉伸等问题。
- ◎The production line adopts Siemens man-machine interface and Siemens computer control operating system, which can realize accurate control and humanized operation of the equipment.
- ◎The calendering machine adopts super-mirror chrome-plating roller and is equipped with servo motor drive to effectively ensure the accuracy of products.
- ◎Special winding machine for soft film can not only ensure the evenness of the edge of the finished coil, but also prevent wrinkling, bulging and stretching of the finished product.





TPU薄膜/片材挤出生产线  
TPU Film & Sheet Extrusion Line

TPU薄膜在医疗上的应用 Application for TPU film in medical

卓越的抗扭结性，弹性，柔韧性。抗内压强度远远大于PVC，透明度优于PVC/EVA和TPO，高耐化学性，可使用伽马射线和ETO杀菌，药物吸附性低，易于粘结。它是制造多种医疗设备的理想材料，包括各种输液管、输液袋，输液管滴漏、植入物以及其他短期应用。

TPU material features excellent kink resistance, elasticity and flexibility. The internal pressure resistance is much higher than that of PVC, the transparency is better than that of PVC / EVA and TPO, high chemical resistance. Gamma ray and ETO can be used for sterilization, the drug adsorption is low and easy to bond. It is an ideal material for manufacturing a variety of medical equipment, including various infusion tubes, infusion tube drip, implants and other short-term applications.



TPU 隐形牙套介绍 TPU tooth socket introduction

采用由安全透明的TPU弹性高分子材料制成的隐形矫治器治疗，与传统固定矫治器相比，无需托槽和钢丝，临床操作大大简化，矫治过程省时省力，并且可以在旁人无察觉中完成整个治疗过程，不影响日常生活和社交。隐形口腔正畸是当前口腔正畸学领域的一项高新科学技术，打破传统正畸疗法的局限性。我司提供全套TPU牙套片材挤出生产线。

The invisible appliance made of safe and transparent elastic polymer material is used for treatment. Compared with the traditional fixed appliance, it does not need bracket and steel wire, the clinical operation is greatly simplified, the correction process is time-saving and labor-saving, and the whole treatment process can be completed without others' awareness, without affecting daily life and social interaction. Invisible orthodontics is a high and new science and technology in the field of orthodontics, which breaks the limitations of traditional orthodontics. JWELL supplies whole line for TPU tooth socket sheet extrusion line.

主要技术参数 Main technical parameters

机型 Model	制品宽度 Products width(mm)	制品厚度 Products thickness(mm)	设计挤出产量 Capacity(kg/h)
JWS75/JWS120	1000-3000	0.02-2.0	300-350
JWS90/JWS90/JWS90	1000-3000	0.02-2.0	200-300
JWS65/JWS120/JWS65	1000-3000	0.02-2.0	300-400

备注：以上规格参数如有变更，恕不另行通知。Note:The specifications are subject to change without prior notice.

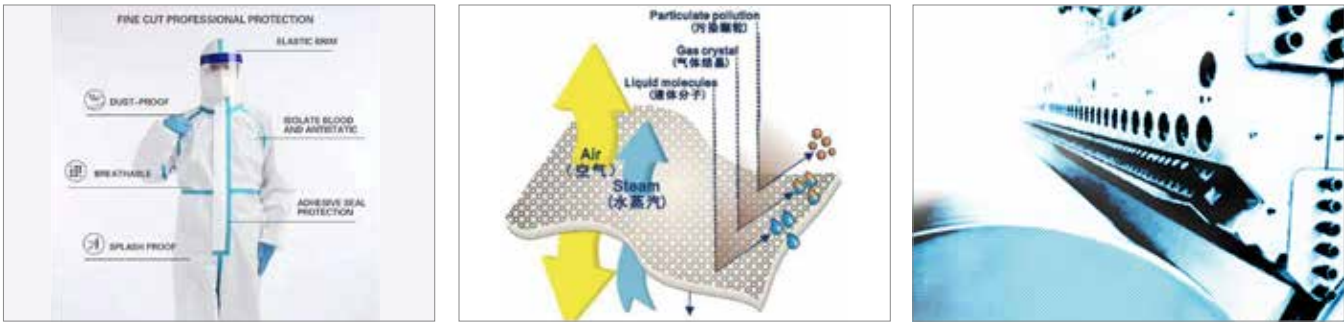




PE透气薄膜生产线  
PE Breathable Film Production Line

该生产线以PE透气胶粒为原料，采用挤出流延法，将含无机填料的PE改性透气粒子通过熔融挤出，模具成型，辊筒高倍率拉伸后制成带有亚纳米级微孔的透气薄膜。

The production line use PE air-permeable plastic granule as raw material, and uses extrusion casting method to melt-extrude the PE-modified air-permeable plastic granule containing inorganic filler through a flat die and the roller is stretched at a high rate to produce a sub-nanometer micro porous membrane.



主要技术参数 Main technical parameters

机型 Model	螺杆直径 Screw Diameter	适用原料 Material	制品宽度 Products width	最大挤出量 Capacity (Max.)	主电机功率 Main motor power
JWS130	130mm	PE	1600mm	450-600kg/h	160KW
JWS160	160mm	PE	2200mm	450-600kg/h	200KW

备注：以上规格参数如有变更，恕不另行通知。Note:The specifications are subject to change without prior notice.

流延压纹透气膜生产线  
Cast Embossed Breathable Film Extrusion Line

产品特点 Features

透气性：制品可在透气性和非透气之间转换。

触感：外观独特，具备优质肤感，接触时并无沙沙声。

产能：生产速度快，产量高。

智能化：配备自动厚度控制系统和高效的冷却辊，可生产透明度好、厚度变化小的CPE薄膜，配备了重量法批量计量系统，恒定气流切割。可控拉伸、可控定向。压纹、印刷、复合等都极为方便。

Breathability: The film can be made to be breathable or non-breathable.

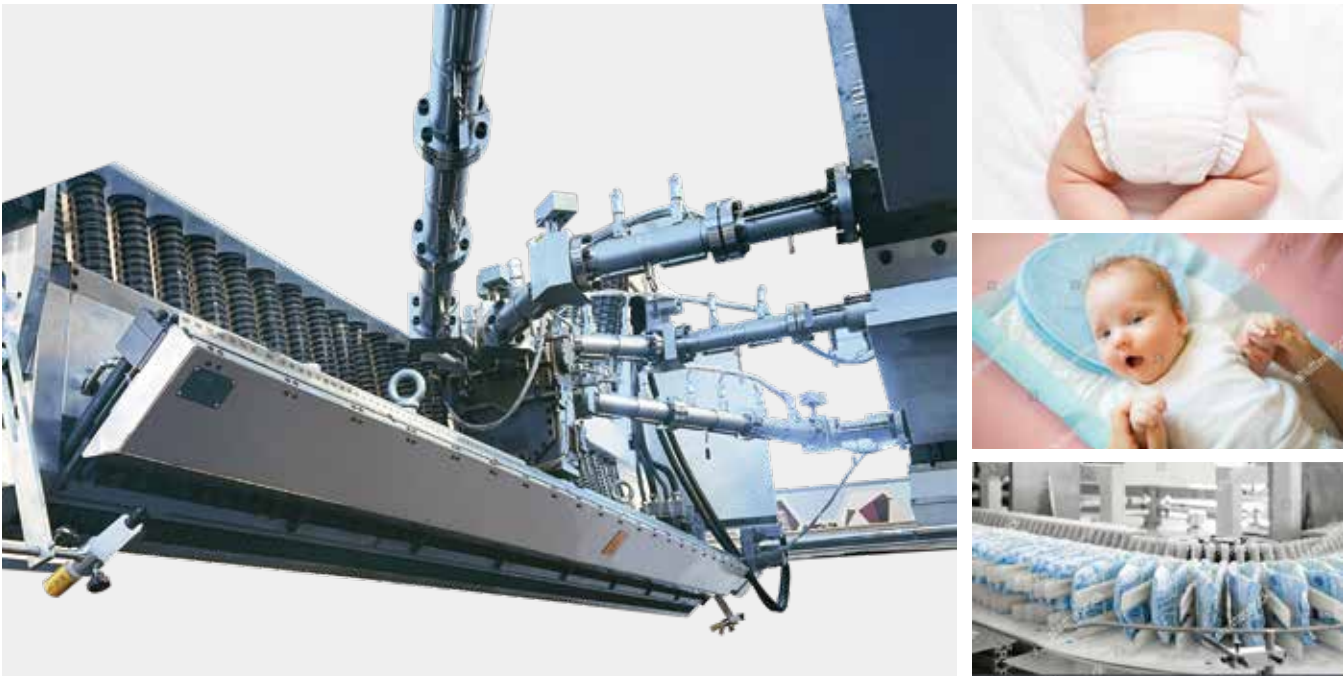
Touch: Unique appearance with premium skin feel and no rustling sound.

Production capacity: Fast production speed and high output.

Intelligence: Equipped with automatic thickness control system and efficient cooling roller, it can produce CPE film with good transparency and small thickness change, equipped with gravimetric batch metering system, constant air flow cutting. Control-lable stretch, controllable orientation. Embossing, printing, compounding, etc. are all very convenient.

应用领域 Application fields

- ◎用于婴儿和成人的尿布的外层。
- ◎用于女性卫生用品的薄膜。
- ◎隔离衣，防护服。
- ◎保护膜：家具、汽车等表面保护的物品。
- ◎Outer layer of diapers for babies and adults.
- ◎Films for feminine hygiene products.
- ◎Isolation gowns, protective clothing.
- ◎Protective film: items for surface protection such as furniture and cars.





PP熔喷无纺布生产线
PP Meltblown Non-woven Fabric Extrusion Line



熔喷布主要以聚丙烯为主要原料，纤维直径可以达到1~5微米。空隙多、结构蓬松、抗褶皱能力好，这些具有独特的毛细结构的超细纤维增加单位面积纤维的数量和表面积，从而使熔喷布具有很好的过滤性、屏蔽性、绝热性和吸油性。可用于空气、液体过滤材料、隔离材料、吸纳材料、口罩材料、保暖材料、吸油材料及擦拭布等领域。

Meltblown Non-woven Fabric is mainly made of polypropylene, and the fiber diameter can reach 1 ~ 5 microns. There are many voids, fluffy structure, and good anti-wrinkle ability. These ultrafine fibers with unique capillary structure increase the number and surface area of fibers per unit area, so that the meltblown cloth has good filterability, shielding, heat insulation and oil absorption. Can be used in the fields of air, liquid filter materials, insulation materials, absorbent materials, mask materials, thermal insulation materials, oil-absorbing materials, and wiping cloths.



主要技术参数 Main technical parameters

机型	螺杆直径	适用原料	制品宽度	最大挤出量	主电机功率
Model	Screw Diameter	Material	Products width	Capacity (Max.)	Main motor power
JW65	65	PP	800mm	500-600kg/d	22KW
JW90	90	PP	1600mm	1200-1500kg/d	45KW
JW105	105	PP	2400mm	2000-2500kg/d	55KW
JW135	135	PP	3200mm	3000-3500kg/d	75KW

备注：以上规格参数如有变更，恕不另行通知。Note:The specifications are subject to change without prior notice.

纺粘无纺布生产线
Spunbond Nonwoven Fabric Production Line

纺粘无纺布生产线主要用于PP纺丝成网、热轧加固的无纺布生产。以PP为主原料，辅以色母粒和抗氧化、抗起球、阻燃剂等添加剂，生产不同颜色、不同性质以及适应不同用途的PP纺粘热轧无纺布，广泛用于医疗、卫生等领域材料。复合型生产线更换不同配置可以生产S、SS、SSS等系列产品，满足客户不同用途的PP纺粘无纺布市场需求。

The spunbond non-woven fabric production line is mainly used for the production of non-woven fabrics with PP spun webs and hot-rolled reinforcement. Use PP as the main raw material, supplemented by color masterbatch and anti-oxidation, anti-pilling, flame retardant, etc. Additives to produce PP spunbonded hot-rolled non-woven fabrics of different colors, different properties and suitable for different purposes, which are widely used in medical, sanitary and other fields. The composite production line cannot be replaced. The same configuration can produce S, SS, SSS and other series of products to meet customers' needs in the PP spunbond non-woven fabric market for different purposes. SMS spunmelt composite nonwoven fabric is made of spunbonded nonwoven fabric + meltblown nonwoven fabric + spunbonded nonwoven fabric through three-layer fiber web hot rolling composite. Our company has a full set of one-step SMS spinning.



主要技术参数 Main technical parameters

机型	有效幅宽	速度	克重范围	产量	装机容量	机器尺寸约
Model	Width	Speed	Gram range	Output	Installed capacity	Dimension(approx)
JW-1600-S	1600mm	≤150m/min	9-250g/m²	3-6T/d	≈200KVA	20m*10m*12m
JW-2400-S	2400mm	≤150m/min	9-250g/m²	5-7T/d	≈250KVA	20m*11m*12m
JW-3200-S	3200mm	≤150m/min	9-250g/m²	8-10T/d	≈315KVA	20m*13m*12m
JW-1600-SS	1600mm	≤300m/min	10-120g/m²	5-10T/d	≈400KVA	35m*12m*12m
JW-2400-SS	2400mm	≤300m/min	10-120g/m²	10-12T/d	≈500KVA	35m*15m*12m
JW-3200-SS	3200mm	≤300m/min	10-120g/m²	12-20T/d	≈800KVA	35m*17m*12m

备注：以上规格参数如有变更，恕不另行通知。Note:The specifications are subject to change without prior notice.



## SMS纺熔复合无纺布生产线

### SMS Spunmelt Composite Nonwoven Fabric Production Line

SMS纺熔复合非织造无纺布是纺粘无纺布+熔喷无纺布+纺粘无纺布通过三层纤网热轧复合而成。我公司拥有全套一步法SMS纺熔复合非织造无纺布生产工艺和技术，该生产线采用高精密的模头喷丝板加工手段和精湛的生产工艺，生产出来单丝纤度更均匀、布面质感倍加柔和，能极大地满足不同客户的需求。产品被广泛适用于医用隔离服、手术衣帽、床单帷帘、卫生巾、婴儿尿片、成人失禁垫（裤）等一次性医疗防护及个人卫生护理行业领域。

SMS spunmelt composite nonwoven nonwoven is also made of spunbonded nonwoven fabric + meltblown nonwoven fabric + spunbonded nonwoven fabric through three-layer fiber web hot rolling composite. Our company has a full set of one-step SMS spunmelt composite nonwoven nonwoven production technology and technology. The production line adopts high-precision die spinneret processing methods and superb production technology. Produced monofilament finer and finer. Even, the texture of the cloth surface is more soft. Can greatly meet the needs of different customers. The products are widely used in medical isolation gowns, surgical gowns, bed sheet curtains, sanitary napkins, baby diapers, adult incontinence pads (pants) and other disposable medical protection and personal hygiene care industries.



#### 主要技术参数 Main technical parameters

机型 Model	制品幅宽 Width	克重范围 Gram range	设备速度 Output	制品花纹形状 Texture
JW-1600-SMS	1600mm	9-80g/m <sup>2</sup>	< 300m/min	菱形 方点 芝麻点 梅花点 椭圆点 一字纹
JW-2400-SMS	2400mm	9-80g/m <sup>2</sup>	< 300m/min	
JW-3200-SMS	3200mm	9-80g/m <sup>2</sup>	< 300m/min	

备注：以上规格参数如有变更，恕不另行通知。Note:The specifications are subject to change without prior notice.

## CFRT医用复合材料生产线

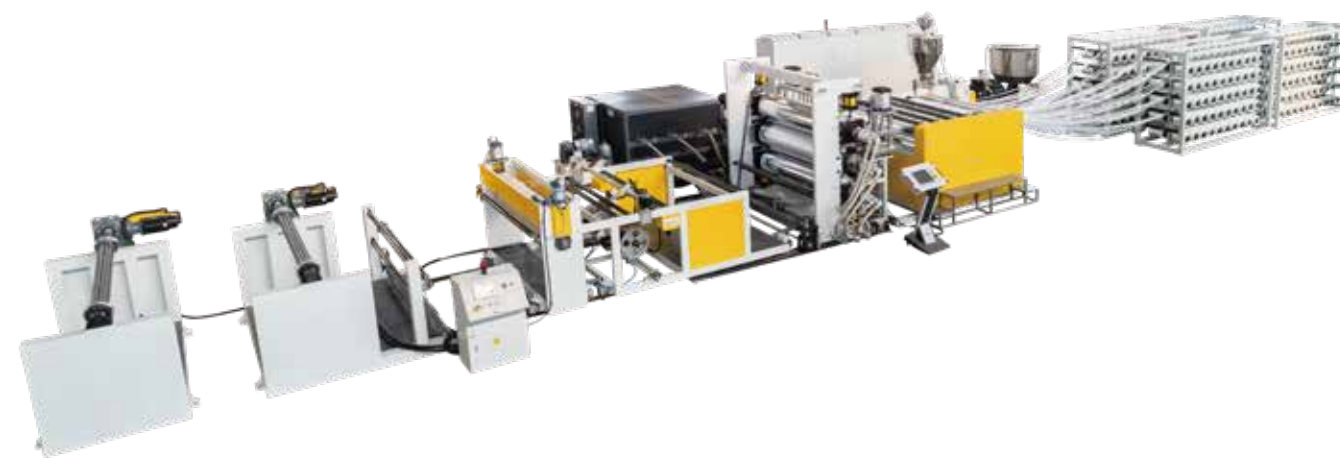
### CFRT Medical Composite Material Production Line

CFRTP单向带为连续纤维经展开铺平并浸渍热塑性树脂熔体再定型后的单层纤维增强热塑性复合材料片材，其特点是纤维彼此间平行排列，无交织。

CFRTP unidirectional tape is a single-layer fiber-reinforced thermoplastic composite sheet in which continuous fibers are spread out, flattened, and impregnated with thermoplastic resin melt.

在医疗器械领域，利用其X射线全透射性，其被用于制造X光检查仪用移动平台；利用CFRTP优异的机械性能，其被用于制造骨科用和器官移植用等医疗器械，以及制造假肢、矫形器等康复产品。

In the field of medical devices, it is used in the manufacture of mobile platforms for X-ray inspection machines by virtue of its total X-ray transmittance; by virtue of the excellent mechanical properties of CFRTP, it is used in the manufacture of medical devices such as orthopedics and organ transplantation, as well as manufacturing Rehabilitation products such as prostheses and orthoses.



- ①基础树脂：PP、PE、PET、PA6、PPS、PEEK等
- ②纤维类型：玻璃纤维、碳纤维、芳纶、玄武岩纤维等高强度纤维
- ③制品厚度：0.1~0.45mm
- ④制品宽度：60~1300mm
- ⑤制品面密度：100~650gsm
- ⑥制品纤维含量：40%~70%
- ⑦牵引速度：5~25m/min

- Unidirectional prepreg belt production line
- ① Basic resins: PP, PE, pet, pa6, PPS, peek, etc
  - ② Fiber type: glass fiber, carbon fiber, aramid fiber, basalt fiber and other high strength fibers
  - ③ Thickness of products: 0.1-0.45mm
  - ④ Product width: 60-1300mm
  - ⑤ Product surface density: 100-650gsm
  - ⑥ Fiber content of products: 40% - 70%
  - ⑦ Traction speed: 5-25m / min



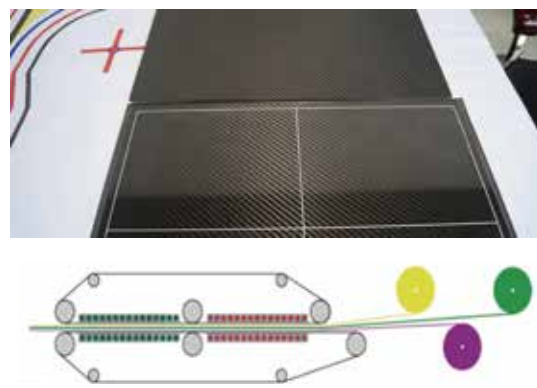


## CFRT预浸带复合板生产线

### CFRT Medical Composite Material Production Line

CFRT热塑性层压板复合生产线：连续纤维增强带经过特殊的工艺制备出来的热塑性复合板，拥有优良的机械物理性能。板材整体密度仅为钢板1/5、铝板的1/2。生产流程：由上下两条传送带传递压力并将接触式加热和冷却系统集成一体，复合的材料会被均匀的加热，材料在离开上下带之前被冷却，根据不同工艺要求组合不同的加热区、冷却区长度及压合辊数量，通过控制温度速度和压力，材料会完美地贴合并具有较好的粘接牢固，上下带均匀的间隙和精确的间距调节，保证表面复合材料平整无褶皱，既可实现连续工作。

CFRT thermoplastic laminate composite production line: The thermoplastic composite board prepared by continuous fiber reinforced tape through a special process has excellent mechanical and physical properties. The overall density of the plate is only 1/5 of the steel plate and 1/2 of the aluminum plate. Production process: The pressure is transmitted by the upper and lower conveyor belts and the contact heating and cooling systems are integrated. The composite material will be heated evenly, and the material will be cooled before leaving the upper and lower belts. Different heating zones and cooling are combined according to different process requirements. The length of the zone and the number of pressing rollers, by controlling the temperature, speed and pressure, the material will be perfectly attached and have a good bond. The upper and lower belts have a uniform gap and precise spacing adjustment to ensure that the surface composite material is flat and wrinkle-free. To achieve continuous work.



## 碳纤维复合材料

### Carbon Fiber Composite Material

碳纤维复合材料是一种高强度、高模量的新型材料。通过复合模压等技术工艺在医疗器械，军事，航天科技，汽车、轨道交通等领域得到了广泛应用。碳纤维具有良好的X光透过性及生物相容性，适用于医疗射线的通路材料，碳纤维抗腐蚀，耐高低温，有一定的导电和导热性，是医疗器材制作绝佳材料。

Carbon fiber composite material is a new type of material with high strength and high modulus. Through composite molding and other technical processes, it has been widely used in medical equipment, military, aerospace technology, automobiles, rail transit and other fields. Carbon fiber has good X-ray transmittance and biocompatibility, and is suitable for medical ray pathway materials. Carbon fiber is resistant to corrosion, high and low temperature, and has certain electrical and thermal conductivity. It is an excellent material for medical equipment.

#### 应用举例 Application examples

1、碳纤维在超导磁体构件中的应用：核磁共振成像检查目前在各大医院已成为较为常见的体检方式，器械的核心超导磁铁需要在非常低的温度下才能发挥出较高的磁场。核磁共振器械内部部件需要在液氮低温下发挥稳定的性能，碳纤维材料能够达到在极低温度下力学性能稳定的特性，所以众多知名厂家以碳纤维复合材料制作核磁共振的温部位的力学构件。

The application of carbon fiber in superconducting magnet components: MRI has become a common physical examination method in major hospitals. The core superconducting magnet of the device needs to be at a very low temperature to exert a high magnetic field. The internal components of NMR equipment need to exhibit stable performance at low temperatures in liquid nitrogen, and carbon fiber materials can achieve stable mechanical properties at extremely low temperatures. Therefore, many well-known manufacturers use carbon fiber composite materials to make the mechanical components of the warm part of the nuclear magnetic resonance.

2、碳纤维假肢中的应用：碳纤维复合材料设计制作的假肢，强度高、重量轻，使假肢功能更完善。同时，它的脚部还能根据场合需要变换外观，如宴会的高跟鞋、日常生活的休闲鞋、运动中的瑜伽鞋等。目前在膝关节、踝关节、脚、连接管、接受腔等人体假肢中应用普遍，碳纤维复合材料制作的储能假肢脚板，通过CAE分析技术，可针对假肢的局部受力要求进行铺层设计与加工处理，以满足高频使用需求。

Application in carbon fiber prosthesis: The prosthesis designed and manufactured by carbon fiber composite material has high strength and light weight, which makes the prosthesis function more perfect. At the same time, its feet can also change the appearance according to the needs of the occasion, such as high-heeled shoes for banquets, casual shoes for daily life, and yoga shoes for sports. At present, it is widely used in human prostheses such as knee joint, ankle joint, foot, connecting tube, receiving cavity, etc. The energy storage prosthetic foot plate made of carbon fiber composite material can be used for the local force requirements of the prosthesis through the CAE analysis technology. Processing to meet the needs of high frequency use.

## 碳纤维复合材料

### Carbon Fiber Composite Material

3、碳纤维在X光检测设备应用：医疗检车常用X光检测，X光平板探测器是多功能高分辨率X射线平板成像设备，碳纤维吸收射线少，透波性能强，能传导微电流，能降低电压减少射线能量，能让探测器成像更加清晰，另外降低用电量，减少了辐射，对于医患辐射的危害大大降低，相比传统的铝板优势明显。

Application of carbon fiber in X-ray inspection equipment: X-ray inspection is commonly used in medical inspection vehicles. X-ray flat panel detector is a multi-functional high-resolution X-ray flat-panel imaging equipment. Carbon fiber absorbs less radiation, has strong wave transmission performance, and can conduct micro-current. , can reduce the voltage and reduce the ray energy, make the detector image clearer, in addition to reduce the power consumption, reduce the radiation, the radiation harm to doctors and patients is greatly reduced, compared with the traditional aluminum plate has obvious advantages.

4、碳纤维医疗床板的应用：碳纤维复合材料化学性质稳定，抗腐蚀能力强，即便和酒精、药物、血液等常见医疗物品长期接触也不会出现腐蚀，而且清理简单便于转移，是制作医疗床板的绝佳材料，碳纤维医疗床板符合医疗器械使用标准，已经进入实际使用阶段。碳纤维材料医疗床板多在射线检测床上使用，床板本身能达到射线在任何角度照射不折射，透过率高，显像更加清晰，利用较少的材料便能达到强度、刚度要求，相比传统医疗床板其重量可减轻约45%。

Application of carbon fiber medical bed board: Carbon fiber composite material has stable chemical properties and strong corrosion resistance. Even if it is in contact with common medical items such as alcohol, drugs, and blood for a long time, it will not corrode, and it is easy to clean and transfer. It is the best choice for making medical bed boards. Excellent material, the carbon fiber medical bed board meets the standards for medical equipment and has entered the stage of practical use. Carbon fiber medical bed boards are mostly used on radiographic testing beds. The bed board itself can achieve no refraction of rays when irradiated at any angle, with high transmittance and clearer imaging. It can meet the requirements of strength and stiffness with less material. Compared with traditional medical treatment The weight of the bed board can be reduced by about 45%.

5、碳纤维理疗用品中的应用：碳纤维在通电后的热能以远红外方式、且波长为7-14um、当两段波长相等相互作用时就会产生共振现象。可促进人体皮肤和皮下组织中的细胞温度上升，使人体由内至外产生热传递，促进和改善了人体的血液循环;有利于消除人体疲劳和肌体机能恢复，增强新陈代谢，提高人体免疫功能，因此具有一定的保健功能。

The application of carbon fiber physiotherapy products: the thermal energy of carbon fiber after being energized is in the form of far-infrared, and the wavelength is 7-14um. When the two wavelengths interact equally, a resonance phenomenon will occur. It can promote the temperature rise of cells in human skin and subcutaneous tissue, make the human body generate heat transfer from the inside to the outside, promote and improve the blood circulation of the human body; it is beneficial to eliminate human fatigue and restore body function, enhance metabolism, and improve human immune function. Therefore, it has certain health care functions.





PEEK/PPS/PSU/PETP/PA/ABS/PE/PP冷推棒材板材生产线  
PEEK/PPS/PSU/PETP/PA/ABS/PE/PP Cold Push Bar And Sheet Production Line

HDPE/PP/ABS厚板广泛应用在耐酸碱设备，环保设备(雾气塔，电解槽，废气塔，搅拌塔)，废水，废气排放设备备用.洗涤塔，无尘塔，塑料水箱的首选材料，半导体厂及其它相关工业设备，超厚板材广泛用在冲压板，冲床垫板，雕刻板及特殊工程上面。PEEK中文名称为聚醚醚酮，主要运用在航天、医疗、制药和食品加工业得到了非常普遍的应用，如卫星上的气体分析仪结构件、热交换器刮片；因其优越的耐摩擦性能，在摩擦应用领域成为理想材料，如辊筒轴承、滑动轴承、阀门座、密封圈、泵耐磨环等。PPS塑料(聚苯硫醚)是一种综合性能优异的热塑性特种工程塑料。PPS的主要用途还是在电子电器领域，如制作变压器骨架，高频线圈骨架、插头、插座、接线架、接触器转鼓鼓片及各种精密零件等。

HDPE/PP/ABS thick plate is widely used in acid and alkali resistant equipment, environmental protection equipment (fog tower, electrolytic cell, waste gas tower, mixing tower), waste water, waste gas discharge equipment spare scrubber tower, dust-free tower, the preferred material of plastic water tank, semiconductor plant and other related industrial equipment, super thick plate is widely used in punching plate, punching pad plate, carving plate and special engineering above. The Chinese name for PEEK is called polyether ether ketone.It has been widely used in aerospace, medical, pharmaceutical and food processing industries, such as gas analyzer structural parts and heat exchangers on satellites.Due to its excellent friction resistance, it has become an ideal material in the field of friction application, such as roller bearing, sliding bearing, valve seat, sealing ring, pump wear ring, etc. PPS plastic (polyphenylene sulfide) is a kind of thermoplastic special engineering plastic with excellent comprehensive performance.The main use of PPS is in the field of electronic appliances, such as making transformer skeletons, high-frequency coil bobbins, plugs, sockets, wiring frames, contactor drum drums and various precision parts.



主要技术参数 Main technical parameters

型号 Model	JWS45/25	JWS65/30
适用原料 Material	PEEK/PPS/PSU/PETP/PA/ABS/PE/PP	
主机转速 Main engine rate of revolution	10-49r/min	10-49r/min
主电机功率 Main motor power	11KW	22KW
制品厚度 Products thickness	20-100mm	20-100mm
最大挤出量 Capacity (Max.)	10kg/h	25kg/h

备注：以上规格参数如有变更，恕不另行通知。Note:The specifications are subject to change without prior notice.

医用三层（二层）避光输液管生产线  
Three Layers (Two Layers) of Medical Light-proof Infusion Tube Extrusion Line

该系列设备针对避光管的使用特性建设为主机共挤结构，三层或两层共挤专用模具，真空定型冷却水槽，伺服牵引切断连体机，皮带输送机等组成。客户可选配在线侧径测量仪。具有高效充分塑化、模具流量的精确控制，可以使得管路粘合良好，不分层，减少避光层偏移；更换专用模具可以用于OD20的双层共挤平口滴门，（内层厚度约为：0.2~0.25mm，外层厚度约为：0.65~0.7mm），模具结构为免调试，内外层分布均匀，模具流道无死角，拆模快捷方便，提高生产效益。

◎滴用管径范围：OD1.5~OD20mm

◎滴用材料：医用级PVC料、PVC避光料、TPU料等。

This series of equipment adopts two machines co extrusion structure based on characteristics of light-proof tube, which consists of three layers or two layers of coextrusion dedicated die, vacuum forming cooling tank, servo haul off and cutting machine and belt conveyor. Customer can choose online track outside diameter gauge. High efficient plastification and precise control of die and flow enable lightproof tube to bond well.This equipment with replacement of special mold can suitable for OD20 double-layer coextrusion flat mouth dripping bucket(inner layer thickness is 0.2mm ~ 0.25mm, the outer layer thickness is 0.65mm ~ 0.7 mm), Avoid adjustment mold structure, inner and outer layer uniform distribution, mold flowing channel with no dead Angle, quick and convenient dismantle, improve production efficiency.

◎Applicable tube diameter: OD1.5-OD20mm

◎Applicable materials: PVC compounds, PVC light-proof compounds and TPU compounds for medical application.



主要技术参数 Main technical parameters

设备型号	螺杆直径和长径比	产能kg/hr	占地尺寸(长宽高，单位MM)
Equipment model	Screw diameter and L/D	Capacity Kg/hr	Machine size(L/W/H,in MM)
JWS45+25	45*28D 25*25D	15~25	L9500*W2500*H1780
JWS50+30	50*28D 30*28D	20~45	L13000*W2500*H1780
JWS55+30	55*28D 30*28D	30~55	L13500*W2500*H1780

备注：以上规格参数如有变更，恕不另行通知。Note:The specifications are subject to change without prior notice.



精密中心静脉导管生产线  
Precision Central Venous Catheter Production Line

产品功能 Application

中心静脉导管、麻醉管、输液管、导尿管、毛细管、多孔管等各类精密医用导管。  
Central venous catheter, anesthesia tube, infusion tube, catheter, capillary tube, porous tube and other precision medical catheters.



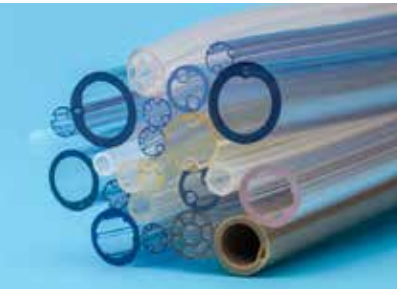
主要特点 General features

- ◎挤出机采用德国西门子人机界面及西门子电脑控制操作系统，德国进口免维护电机与减速机直联方式驱动，能有效防止常规皮带传动的低效率、传动误差大、皮带与带轮的摩擦掉粉污染洁净车间等缺陷，使生产过程中无粉尘、无油渍、无噪音；
- ◎不锈钢定型水槽全部采用进口SUS304不锈钢折弯成型、全玻璃盖封闭式结构、医用级去离子水专用不锈钢离心泵，水环式低真空度的真空成型方式，确保了管材的圆度和精度；再配以风环式吹干装置，从而使生产过程中的冷却水能够循环使用而不溅湿地面；
- ◎双轴测径仪采用高速激光光源、日本TOSHIBA高精度CCD、计算机数字化图像处理技术、能够实现在线产品非接触测量、实施数字化显示、测量精度：±0.003MM；
- ◎牵引机皮带采用瑞士进口多楔带、日本三菱伺服电机及控制器、德国进口涡轮蜗杆减速机传动，确保牵引线速度高精度高稳定性的长期运行、且牵引过程中皮带不打滑、无噪音；
- ◎切断机采用低惯量铝合金旋转刀臂及特殊切断刀套、使切口平整无飞丝，日本三菱伺服电机驱动，日本三菱PLC编程控制、海泰克人机操作界面、可确保切断长度的精度，切断长度可任意设定、切断次数自动计数；
- ◎挤出主机和牵引机采用全闭环交流伺服控制系统，使牵引速度可时刻跟进主机速度的变化而变化，可确保整条生产线处于高精度高频率响应度的速度同步状态；能有效避免因外围环境因素影响主机速度变化时造成管径的波动，从而确保产品的最高精度达到±0.03的超高标准。

- ◎The extruders adopt Siemens man-machine interface and Siemens computer-control operation system, maintenance-free motor (Germany) and decelerator direct driving, which can effectively avoid low efficiency and big transmission error of general belt transmission. Dust, grease dirt and noise produced during manufacturing process are also avoided.
- ◎The cooling bath is made of imported SUS304 stainless steel with complete glass closed structure and stainless steel centrifugal pump for special medical-grade deionized water. Its water-annulus and low vacuum moulding ensures fine roundness and precision of pipes. Its air-annulus drying device allows the cooling water to be used circularly and not to splash the ground.
- ◎Biaxial diameter gauge adopts high velocity laser light source, Japan TOSHIBA high-precision CCD, digital image manipulation, non-contacting measuring for online products and real-time digital display with measuring precision of ±0.003mm.
- ◎The haul-off unit consists of belts made from Switzerland, servo motor and controller of Japan MITSUBISHI, turbing and worm decelerator from Germany. It can work with high precision and stability and no skidding or noise.
- ◎The cutting unit is equipped with aluminum alloy rotatable Knife arm of low-inertia as well as special cutting Knife pouch which ensures smooth cuts. It is servo motor driving and PLC programming controlling of Japan MITSUBISHI, as well as Siemens man-machine interface ensure precision of cutting length. Cutting length can be set at will and cutting times can be counted automatically.
- ◎The extruder and the haul-off adopt complete closed loop serve motor which enables hauling speed to change with the extruder speed, and consequently ensure speed synchronization on the whole line with high precision and frequency responsibility. It can also prevent pipe diameter from fluctuating when working speed is changed due to environmental factors, and thus ensures product precision up to ±0.03.

呼吸类导管、输液管单螺杆挤出生产线  
Single-screw Extrusion Production Line For Respiratory Catheter And Infusion Tube

该系列设备由单螺杆挤出主机、挤出模具、真空成型冷却水槽、小皮带牵引、伺服切断机组成，客户可根据需求选配输送机，设备和产品接触面铺设不锈钢面SUS316或可根据客户需求定制。  
◎设备采用材料：医用级聚氯乙烯(PVC)；医用级聚氨酯(TPU)；等其他材料。  
◎滴用管类名称：鼻痒管、气管插管、输液管和高弹性输液管、双腔、多腔、单排管等。  
◎设备滴用管径和公差范围：  
外径：1.5mm~20mm  
外径尺寸公差：+/-0.01mm,+/-0.02mm,+/-0.05mm  
壁厚：0.1mm~3.0mm



This series of equipment consists of single screw extrusion main machine, extrusion die, vacuum forming cooling tank, belt haul-off unit and servo cutter. Equipment and product contact surface can be made of stainless steel(SUS316)or custom designed to match customer's requirements.  
◎Applicable materials: PVC, TPU and other materials for medical application.  
◎Applicable tubes: Nasal oxygen cannula, tracheal intubation, infusion tube, elastomeric infusion tube, double-cavity, multi-cavity and single row tube, etc.  
◎Applicable tube diameter and margin of tolerance:  
Outside diameter: 1.5- 20mm  
Dimensional tolerance of outside diameter: +/-0.01, +/-0.02, +/-0.05mm  
Wall thickness:0.1-3.0mm



主要技术参数 Main technical parameter

设备型号 Equipment model	螺杆直径和长径比 Screw diameter and L/D	产能kg/hr Capacity Kg/hr	占地尺寸(长宽高，单位MM) Machine size(L/W/H,in MM)
JWS25	25*25D	2 ~ 5	L7500*W2000*H1780
JWS45	45*28D	15 ~ 40	L9500*W2500*H1780
JWS55	55*28D ( 30D )	20 ~ 55	L10500*W2500*H1780
JWS 65	65*28D ( 30D )	40 ~ 90	L12600*W3000*H1780

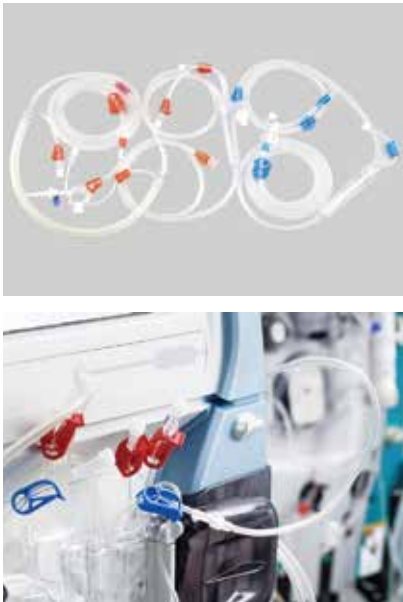
备注：以上规格参数如有变更，恕不另行通知。Note:The specifications are subject to change without prior notice.



管路（透析）管、输血管精密单螺杆挤出生产线  
 Precision Single Screw Extrusion Line Extracorporeal Blood Tube(Dialysis Tube)and Blood Transfusion Tube

该系列设备针对血透耗材需求量巨大，质量要求安全标准高，建设设备的配置由自动吸料机、高产能精密单螺杆挤出主机、专用挤出模具、加长真空成型冷却水槽、伺服牵引切断一体机和输送机组成，客户可选配在线精密外径测量仪；依据不同客户特殊应用需求，可针对性提供全方面的技术支持、操作培训、及时跟踪完善售后服务。  
 ◎速度：为满足泵管、主管、支管等不同管径不同的生产速度，牵引机的动力可采用日本三菱伺服电机配合进口高效减速机，做到改变速度的同时满足不同管径扭矩力度及伺服的稳定性。  
 ◎整机组设备操作简便，外观客户根据客户要求定制不锈钢面，满足十万级干净车间使用标准。

This series of equipment is designed for high demand of hemodialysis material, which consists of auto loader, high output precision single screw extrusion main machine, special extrusion die, lengthening vacuum forming cooling tank, servo haul-off and cutting machine and conveyor.Customer can choose online precision outside diameter gauge; We can provide comprehensive technical support, operation training, prompt follow-up and perfect after-sales service according to different user's specific application requirements.  
 ◎Speed: Haul-off unit power can adopt Japan MITSUBISHI servo motor with imported reducer to change speed and deliver different pulling force and drive stability.  
 ◎Complete unit is easy to operate, the appearance can be made of stainless steel according to customers requirements to meet the standards of 100-thousand-grade clean workshop.



主要技术参数 Main technical parameter

设备型号 Equipment model	螺杆直径和长径比 Screw diameter and L/D	产能kg/hr Capacity Kg/hr	占地尺寸(长宽高, 单位MM) Machine size(L/W/H,in MM)
JWS-45	45*28D	25~25	L9500*W2500*H1780
JWS-65	65*28D(30D)	60~80	L12600*W3000*H1780
JWS-75	75*28D(30D)	100~150	L14000*W3000*H1780

备注：以上规格参数如有变更，恕不另行通知。Note:The specifications are subject to change without prior notice.

医用PVC软管生产线  
 Soft PVC Medical Tube Extrusion Line

本机组主要用于生产PVC、PP、PE等塑料软管，可广泛应用于医疗、化工、饮料等行业。它具有以下特点：  
 ◎本机组设计先进，主机及标线机均采用变频调速，挤出速度稳定。  
 ◎冷却水槽的水位、水温自动控制。  
 ◎牵引机采用皮带及压辊组合方式，变频调速，牵引速度稳定。  
 The production line is mainly for PVC, PP, PE etc. Plastic tube to medical products, chemical and drink fields. It has the following features:  
 ◎Advanced design technology, inverter control for main machine and markline machine, stable extrusion speed.  
 ◎Automatic control the water level and temperature in cooling trough.  
 ◎Belt and press roll for haul off machine, inverter control and stable haul-off speed.



精密输液管生产线  
 Precise Perfusion Pipe Extrusion Line

高扭矩专用驱动系统，齿、轴为高强度合金钢，渗碳、磨齿处理。  
 螺杆具有芯部温度调节装置及良好的料筒冷却，保证了对物料工艺温度的精确控制。  
 Drive system is special for high torque unit. Gear and shaft are made of high strength alloy steel, nitriding and polishing.  
 Temperature adjusting system and good cooling of barrel ensure an accurate temperature.



主要技术参数 Main technical parameter

型 号 Type	螺杆直径 Screw Diameter	螺杆长径比 Screw L/D	主电机功率 Main Power	产量 Capacity
JWS-45	45mm	28:1	11kw	20-25kg
JWS-50	50mm	28:1	22kw	30-45kg
JWS-65	65mm	28:1	30kw	60-80kg

备注：以上规格参数如有变更，恕不另行通知。Note:The specifications are subject to change without prior notice.



塑料吸管/滴管中空成型机
Plastic Medical Straw Tube/Dropper Blow Molding Machine

一次性塑料吸管/滴管是实验室、食品研究、医药等行业不可缺少的一种实验耗材。其规格有0.2ml、0.5ml、1ml、2ml、3ml、5ml、10ml等规格。
Disposable plastic straw pipe/dropper is widely used in laboratory, food research, medical industrial etc. Specifications are 0.2ml、0.5ml、1ml、2ml、3ml、5ml、10ml Etc.



主要技术参数 Main technical parameters

机型	Model	Unit	BM02D
最大制品容积	Max product volume	L	2
机器空循环	Dry cycle	Pc/h	900*2
机头结构	Die head structure		连续式 Continuous type
主螺杆直径	Main screw diameter	mm	65
最大塑化能力	Max plasticizing capacity(PE)	kg/h	70
绞料电机功率	Driving motor	Kw	22
油泵电机功率(伺服)	Oil pump motor power(Servo)	L	11
锁模力	Clamping force	KW	40
模板开距	Space between platen	KN	138-368
模板尺寸	Platen size W*H	mm	286*330
最大模具尺寸	Max.mould size	mm	300*350
移模行程	Platen moving stroke	mm	420
机头加热功率	Heating power of die head	KW	6
机器外形尺寸	Machine dimension L*W*H	m	3.0*1.9*2.4
机器总重量	Machine weight	T	5
装机总功率	Total power	KW	45

备注：以上规格参数如有变更，恕不另行通知。Note:The specifications are subject to change without prior notice.

塑料医疗病床中空成型机
Plastic Hospital Bed Blow Molding Machine

性能和优点 Performance and advantages

- ◎适用于生产各种规格塑料医疗床床头板、床尾板和护栏
- ◎采用高产量挤出系统，储料式模头
- ◎按照原料情况，可选配JW-DB板式单工位液压换网系统
- ◎可根据制品大小定制模板规格尺寸
- ◎Suitable for producing different kinds of plastic medical bed head boards、foot boards and guardrails.
- ◎Adopt high output extrusion system,accumulating die head.
- ◎According to the different material, optional JW-DB single station hydraulic screen-exchanger system.
- ◎According to the different product size, customized the platen type and size.



主要技术参数 Main technical parameters

机型	Model	Unit	BM100	BM160
最大制品容积	Max product volume	L	100	160
机器空循环	Dry cycle	Pc/h	360	300
机头结构	Die head structure		储料式 Accumulating type	
主螺杆直径	Main screw diameter	mm	100	100
最大塑化能力	Max plasticizing capacity(PE)	kg/h	240	240
绞料电机功率	Driving motor	Kw	90	90
储料缸容量	Accumulating volume	L	12.8	18
油泵电机功率(伺服)	Oil pump motor power(Servo)	KW	22	22
锁模力	Clamping force	KN	600	800
模板开距	Space between platen	mm	500*1300	500*1400
模板尺寸	Platen size W*H	mm	1020*1000	1120*1200
最大模具尺寸	Max.mould size	mm	800*1200	900*1450
机头加热功率	Heating power of die head	KW	30	30
机器外形尺寸	Machine dimension L*W*H	m	5.5*2.5*4.0	7*3.5*4
机器总重量	Machine weight	T	16	20
装机总功率	Total power	KW	135	172

备注：以上规格参数如有变更，恕不另行通知。Note:The specifications are subject to change without prior notice.



# BFS无菌塑料包装吹灌封系统

## BFS Bacteria Free Plastic Container Blow&Fill&Seal System

吹灌封（BFS）技术的最大优点是可以防止外部污染—人为干扰、环境污染、材料污染；BFS无菌包装系统将容器在一个连续的自动化系统中成型、灌装和密封容器；这种成熟的无菌灌装工艺将是无菌生产领域的发展趋势。BFS系统主要用于液体药物应用，如眼科和呼吸道安瓿瓶、盐水或葡萄糖溶液瓶等。

The biggest advantage of Blow&Fill&Seal (BFS) technology is preventing external contamination, such as human interference, environmental contamination and material contamination. Forming, filling and sealing containers in a continuous automated system, BFS will be the development trend in the field of bacteria free production. It is primarily used for liquid pharmaceutical applications, like ophthalmic&respiratory ampoules, saline or glucose solution bottles, etc.



主要技术参数 Main technical parameters

名称 Model	Unit	JWZ-BFS-03-145S			JWZ-BFS-04-110S			JWZ-BFS-06-080S		JWZ-BFS-08-062S		
制品容积 Product volume	ml	0.4-2	5-10	10-20	0.4-1	1-3	5-20	500	1000	100	250	500
模头腔数 Die head Cavity		3	3	3	4	4	4	6	6	8	8	8
中心距 Center distance	mm	145	145	145	110	110	110	80	80	62	62	62
模具腔数 Mold cavity		3 × (5+5)	3 × 7	3 × 6	4 × 10	4 × 8	4 × 5	6	6	8	8	8
模具总腔数 Total cavity		30	21	18	40	32	20	6	6	8	8	8
循环周期 Cycle time	second	12	12	12	12	12	12	18.5	20	14.5	16	18.5
产量 Output	per hour	9000	6300	4500	9000	6300	4500	1150	1080	1950	1800	1550

备注：以上规格参数如有变更，恕不另行通知。Note:The specifications are subject to change without prior notice.

# JWHJ医疗耗材包装生产线

## JWHJ Medical Consumable Packaging Machine



本机型采用高速PLC处理器，高精度温度模块、伺服电机、精致版人机界面控制，设备运行高度自动化，功能齐全、扩展空间大，可按用户要求加配定制特殊装置。适用于一次性使用的咽拭子、口罩、注射器、输液器、输液管、纱布等的纸塑或塑塑吸塑包装。可选配在线批号条码打印机、自动加料器、在线柔版印刷器、视觉检测系统。

This model adopts high speed PLC processor, high precision temperature module,servo motor,exquisite HMI control,highly automatic equipment operation,complete functions,large expansion space,can be customized according to user requirements with special devices.Suitable for paper or plastic blister packing of disposable pharynx swabs, masks,syringes,infusion sets, infusion tubes,gauze etc.Optional online batch bar code printer,automatic feeder,online flexo printer,visual inspection system.

- ◎与针剂、药物接触面采用加厚不锈钢材质，保证强度和安全性
- ◎可根据人工上料速度调整产线速度
- ◎更换模具即可调整包装产品种类
- ◎安全防护等级高，满足欧标认证，让危险不复存在
- ◎图形化操作界面，快速上手，多方位报警提醒，易维护
- ◎根据包装材质，多种裁切刀可选，保证切边光滑
- ◎The contact surface with injection and medicine is made of thickened stainless steel to ensure strength and safety.
- ◎Production line speed can be adjusted according to manual feeding speed.
- ◎Change the mold can adjust the type of packaging products.
- ◎High level of safety protection, meet the European standard certification, so that the danger no longer exists.
- ◎Graphical operation interface, quick start, multi-directional alarm reminder, easy maintenance.
- ◎According to the packaging material, a variety of cutting knife optional, to ensure smooth cutting edge.

主要技术参数 Main technical parameters

型号	封装膜宽度	产量	机器尺寸	整机重量
Model	Film width	Output	Machine size	Equipment weight
HJ-420	≤435mm	300-400包/分钟Packages/min	6500*1100*1820	1600Kg

备注：以上规格参数如有变更，恕不另行通知。Note:The specifications are subject to change without prior notice.



## 耗材自动化装配检测生产线

### Medical Consumables Automatic Assembly and Inspection Production Line

用于胰岛素注射针、留置针、穿刺针、采血针、血液透析器等一次性医用耗材的自动化组装及检测。

Automatic assembly and testing for disposable medical consumables such as Insulin Injection Needles, Indwelling Needles, Puncture Needles, Blood Collection Needles, Hemodialyzers and so on.

- ◎精准定位抓取 Precise Positioning and Grabbing
- ◎装配 Assembly
- ◎测试 Testing
- ◎视觉检测 Visual Inspection
- ◎包装 Packaging



高度自动化、高效率，通过精密的机械结构和特殊的工艺流程设计，实现了生产过程的全自动化，极大地提升了生产效率，节省大量的人力成本，保证成品的高品质和高度的洁净标准；模块化设计，根据客户的生产环境进行布局安装，降低维修保养难度；智能化，支持选装智能检测模块、物联网模块、数据采集模块，实时数据采集，系统集成数据采集模块，在终端形成数据图表，助力实现智能制造。

High automation and high efficiency, through the precise mechanical structure and special process design, the full automation of the production process is realized, which greatly improves the production efficiency, saves a lot of labor costs, and ensures the higher quality and higher cleanliness standard of the finished products. Modular design, layout and installation according to customer's production environment, reduce maintenance difficulty. Intelligent, support optional of Intelligent Detection Module, Internet of Things Module, Data Acquisition Module, Real-time Data Acquisition, System Integration Data Acquisition Module, to form data chart at the terminal, and to help realize intelligent manufacturing.

## 医疗导管装配包装生产线

### Medical Catheter Production, Assembly and Packaging Line

传统医疗导管接头装配及包装在人工操作过程中，不仅需要大量劳动力，而且生产过程中污染风险大，品质难以保证，生产效率低下，已经无法适应当今医用耗材市场发展的趋势。

Tradition labor-consuming medical catheter joint assembly and packaging with shortcoming of high pollution risk, low quality Assurance and production inefficiencies cannot follow latest medical consumables market trend.



金纬医疗导管装配包装一体机切入传统行业痛点，提高生产效率，降低人工成本。主要包括送料，定长，涂胶，装配，卷绕，套袋，塑封等流程。含有定位抓取，视觉检测，次品剔除等关键部位，具有质量溯源，能效分析，看板显示，远程操作等功能，可对接ERP、MES等系统。

Jwell medical catheter production, assembly and packaging line solved these problems by improving production efficiency and reducing labor costs. This line mainly includes feeding, length cutting, gluing, assembly, winding, bagging, plastic sealing and other processes. With positioning capture, visual detection, defective product rejection and other key component, It has quality traceability, energy efficiency analysis, visual display, remote operation and other functions. ERP, MES and other systems can be accessed too.

一体机适用于：引流管，吸引管，吸氧管，输液管等医疗耗材导管。

Application: drainage tube, suction tube, oxygen tube, infusion tube and other medical consumables catheter.

## 医用超声波花边机

### Medical Ultrasonic Lace Sewing Machine

主要运用于医疗领域各种无纺布袋，一次性医用无菌护理垫焊接，一次性手术衣，手术帽，医用眼罩，雨衣，PVE手提袋，雨伞，食品包装袋，帐篷，鞋帽制品，尼龙带封口、集尘袋等。

Mainly used in the medical field of various non-woven bags, disposable medical sterile care pad welding, disposable surgical gowns, surgical caps, medical eye masks, raincoats, PVE hand-bags, umbrellas, food packaging bags, tents, shoes and hat products, nylon band sealing, dust bags, etc.



#### 主要技术参数 Main technical parameter

产品型号 Type	工作频率 HZ	功率 Power	粘合宽度 Width	花轮直径 Roller diameter	最大速度 Max. Speed	工作空间 Work space	机体尺寸 Ultrasonic size	整机尺寸 Machine size
X20	35KHz	1000W	15mm 54mm	30mm 45mm	40m/min	680*130mm	500*125*265mm	1210*600*1100mm
X30	20KHz	2600W	77mm 110mm	50 mm	25 m/min			

备注：以上规格参数如有变更，恕不另行通知。Note:The specifications are subject to change without prior notice.

## 可穿戴外骨骼机器人

### Wearable Exoskeleton Robot

材质：碳纤维、钛合金、工程塑料、航空铝材、透气柔性包裹材料等。

使用范围：减缓工人疲劳的灵巧装备，其采用轻量化材料，具备传统座椅没有的轻便性。借助外骨骼座椅，工人在紧凑的工厂空间中也能随时坐下，保存体力，提高工作效率。

动态平衡原理。即下肢外骨骼的两个支撑和人体两脚组成支撑四边形，当人体重心落在支撑四边形上时，人体可以保持动态平衡。

Material: carbon fiber, titanium alloy, engineering plastics, aviation aluminum, breathable flexible wrapping materials, etc.

Use range: The smart equipment to reduce the fatigue of workers, using lightweight materials, has the lightness that traditional seats do not have. With exoskeleton seats, workers in compact factories.

You can sit down at any time in the space to save energy and improve work efficiency.





多功能消毒柜  
Multifunctional Disinfection Cabinet

产品介绍 Product introduction

臭氧紫外线消毒是常温消毒方式，不但消毒效果好，同时非常适合不能采用高温方式消毒的物品，如包材、塑料瓶盖制品、餐具、档案等物品的消毒，另外还可以节约大量的电力能源。臭氧紫外线对很多病菌、霉菌、病毒、真菌、原虫、卵囊都具有明显的灭活效果，就灭菌时间来说，迅速无比，是氯的300–600倍，紫外线的3000倍。

Ozone ultraviolet disinfection is normal temperature disinfection means, not only disinfection effect is good, at the same time very suitable for the article that cannot use high temperature method disinfection, such as packing material, bottle cap, plastic products, tableware, archives, etc., also can save a lot of electric power energy. Ozone ultraviolet has obvious inactivation effect on many germs, molds, viruses, fungi, protozoa and oocysts. In terms of sterilization time, it is very fast, 300–600 times that of chlorine and 3000 times that of ultraviolet.



产品用途 Product application

- ◎ 医疗器械: 仪器、手术刀、输液器、软管、注射器、雾化器、面罩、气管插管、喉罩、接头、收集器等医疗用品的消毒。
- ◎ 生物制药: 遗传工程、清洁用具、药瓶、眼水瓶等物品的消毒。
- ◎ 食品饮料: 粮食、禽蛋、中草药、干果、肉制品、纯净水、矿泉水及饮料等物品的消毒。
- ◎ 用于不耐高温: 无纺布、复合纸、包装箱、包装袋、衣服、工鞋、包材、原料等物品的消毒。

- ◎ Medical instruments: instruments, scalpels, infusion sets, hoses, syringes, atomizers, masks, endotracheal intubation, laryngeal mask, connectors, collectors and other medical supplies.
- ◎ Biopharmaceutical: genetic engineering, disinfection of cleaning appliances, medicine bottles, eye bottles and other items.
- ◎ Food and beverage: food, eggs, Chinese herbal medicine, dried fruit, meat products, pure water, mineral water and beverage disinfection.
- ◎ Used for high temperature resistance: non-woven cloth, composite paper, packaging boxes, bags, clothes, shoes, packaging materials, raw materials and other items of disinfection.

主要技术参数 Main technical parameters

型号 Type	工作室 Working room	臭氧产量 O3 output	臭氧浓度 O3 mg/m <sup>3</sup>	功率 Power	冷却方式 Cool type
JW-DC-35	400x300x300	3G/H	≥40mg/m <sup>3</sup>	60W	风冷Air-cool
JW-DC-60	400x300x500	3G/H	≥40mg/m <sup>3</sup>	80W	风冷Air-cool
JW-DC-100	400x300x800	5G/H	≥100mg/m <sup>3</sup>	80W	风冷Air-cool
JW-DC-160	500x400x800	5G/H	≥100mg/m <sup>3</sup>	100W	风冷Air-cool
JW-DC-200	500x400x1000	5G/H	≥100mg/m <sup>3</sup>	100W	风冷Air-cool

备注：以上规格参数如有变更，恕不另行通知。Note:The specifications are subject to change without prior notice.

医用多功能恒温箱  
Medical Multifunctional Thermostat

产品介绍 Product introduction

JWHW多功能台式恒温箱采用制冷、加热双向恒温方式，温度控制在–70~150℃之间，可任意设定需要的数值，将温度差控制在0.5℃精度的范围内。适合医疗卫生、食品化工、科研环保等对温度敏感的药品试剂、血液制品、实验材料等使用场合。

JWHW multi-functional desktop thermostat adopts refrigeration, heating two-way constant temperature mode, the temperature is controlled between –70~150℃, can be arbitrarily set the required value, the temperature difference is controlled in the range of 0.5℃ precision.It is especially suitable for medical and health care, food chemical industry, scientific research and environmental protection and other temperature-sensitive drug reagents, blood products, experimental materials and other use occasions.

产品特点 Product features

- ◎ 采用微电脑控制系统，温度数字显示，确保精确稳定运行。
- ◎ 精准的温度控制，精度达到0.5℃。
- ◎ 合理的制冷布局，确保箱内温度稳定在–70~150℃范围内。
- ◎ 密码保护功能，防止随意调整运行参数。
- ◎ 内置LED节能照明灯，开关门自动点亮/熄灭，方便观察箱内物品。
- ◎ 万向脚轮设计，独立调平地脚，方便用户移动设备。
- ◎ 高度可调节搁架设计，适用于存储不同高度的物品。
- ◎ 具备报警功能，箱内高温/传感器故障/断电/开关门异常。
- ◎ Microcomputer control system, digital display of temperature, to ensure accurate and stable operation.
- ◎ Precise temperature control, the accuracy reaches 0.5℃.
- ◎ Reasonable refrigeration layout to ensure that the temperature inside the box is stable in the range of –70~150℃.
- ◎ Password protection to prevent arbitrary adjustment of operating parameters.
- ◎ Built-in LED energy-saving light, open the door automatically light/extinguish, convenient to observe the goods in the box.
- ◎ Universal caster design, independent leveling feet, convenient for users to move equipment.
- ◎ Height adjustable shelf design, suitable for storing items of different heights.
- ◎ With alarm function, high and low temperature in the box/sensor fault/power off/open and close the door abnormal.



主要技术参数 Main technical parameters

型号 Type	工作室 Working room	温度范围 Temper. range	湿度范围 Humidity range	功率 Power
JW-HW-80	400x400x500	0~150℃	30~98%RH	5 KW
JW-HW-100	400x500x500	–20~150℃		6 KW
JW-HW-150	500x500x600	–40~150℃		6.5 KW
JW-HW-225	600x500x750	–50~150℃		7 KW
JW-HW-408	800x600x850	–60~150℃		7.5 KW
JW-HW-800	1000x800x1000	–70~150℃		8 KW

备注：以上规格参数如有变更，恕不另行通知。Note:The specifications are subject to change without prior notice.

医用级PVC造粒生产线  
Medical Grade PVC Pelletizing Machine

金纬机械生产的系列平双螺杆挤出机与相应造粒辅机组成的成套设备，主要适用于医用级PVC造粒。生产的塑料颗粒均匀、密实、美观，辅机采用模面切粒，风送集料，振动分离冷却，具有自动化程度高，生产效率佳等特点。

The medical grade PVC pelletizing machine from JWELL features, uniform granules, dense and beautiful. The auxiliary machine adopts die face granulation, air-driven collection and vibration separation and cooling. Machines has high degree of automation and good production efficiency.



主要技术参数 Main technical parameters

机型 Model	SJP93	SJP120	SJP135
螺杆规格 Size of screw	93/22	120/26	135/31
电机功率 Power	55KW	110KW	160KW
产能产量 Output	300-400kg/h	500-600kg/h	800-1200kg/h
产品规格 Granule size	Ø 3-5mm	Ø 3-5mm	Ø 3-5mm

备注：以上规格参数如有变更，恕不另行通知。Note:The specifications are subject to change without prior notice.

医用级TPU造粒生产线  
Medical Grade TPU Compounding Line

TPU是一种安全、稳定、优质的PVC替代材料，目前已得到全世界众多静脉输液器制造商的认可。卓越得抗扭结性，弹性，柔韧性。抗内压强度远远大于PVC，透明度优于PVC/EVA和TPO，高耐化学性，可使用伽马射线和ETO杀菌，药物吸附性低，易于粘结。根据聚氨酯/TPU物料流变特性，我公司对筒体的加工精度及筒体的冷却效果方面进行大胆的尝试，同时对一些关键部件进行了升级再设计，基本解决了一些制约物料生产过程中的一些瓶颈性问题，反应的效率及产能得到大幅度的提升，客户反应良好，认同度高。

TPU is a safe, stable and high-quality PVC alternative material, which has been recognized by many intravenous infusion device manufacturers all over the world. Excellent kink resistance, elasticity and flexibility. The internal pressure resistance is much higher than that of PVC, the transparency is better than that of PVC / EVA and TPO, the chemical resistance is high, gamma ray and ETO can be used for sterilization, the drug adsorption is low and easy to bond. According to the rheological properties of polyurethane / TPU materials, our company made a bold attempt on the processing accuracy and cooling effect of the cylinder, and upgraded & redesigned key components, which basically solved some bottleneck problems restricting the production process of materials, greatly improved the reaction efficiency and capacity. We had win good market response and high recognition.



主要技术参数 Main technical parameters

机型 Model	CJWH75	CJWH95
长径比 L/D	44-56	44-56
转速 Speed	300-500rpm	300-500rpm
参考产量 Capacity for reference	500-700kg/h	1000-1500kg/h

备注：以上规格参数如有变更，恕不另行通知。Note:The specifications are subject to change without prior notice.



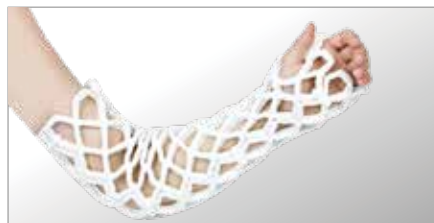
## 医用固定支架 Medical Fixed Support



**短臂 Short Arm**

短臂用于手腕、手和手指受伤。其纤薄轻巧的特点有助于患者进行日常生活活动。

Short Arm is used on wrist, hand and finger injuries. Its slim and light features help patients with performing daily life activities.



**长臂 Long Arm**

长臂用于手腕、肘部和手臂受伤，它提供了足够的固定力来固定骨折。

Long Arm is used on wrist, elbow and arm injuries. It provides sufficient fixating power to immobilize the fracture.



**短腿 Short Leg**

用于脚踝、足部和脚趾受伤。其独特的鞋底结构提供了更多的强度和舒适度。

Short Leg is used on ankle, foot and toe injuries. Its unique sole structure offers more strength and comfort.

### 优点 Benefits

带石膏的淋浴间：允许日常洗涤和带石膏的淋浴。水可以很容易用毛巾和吹风机擦干。无异味无痒：汗水很快蒸发到防止瘙痒和异味。

皮肤监测：医生和患者可以目视检查透过窗户看皮肤状况穿着石膏的时候。

反复磨损：可以重复打开并在需要时重新佩戴。

易于拆卸：可以轻松安全无需使用电锯即可拆除。

舒适卫生：舒适卫生。

Showers with cast on:allows daily washing and showers with cast on. Water can be easily dried off with a towel and a hair dryer.

Odor and Itch free:perspiration is quickly evaporated to prevent itchiness and unwanted odor.

Skin Monitoring:doctors and patients can visually check the condition of the skin through windows while wearing the cast.

Repeated wear:can be repeatedly opened and be re-worn when needed.

Easy removal:can be easily and safely removed without using electric saws.

Comfortable and Hygienic:comfortable and hygienic.

## 医疗垃圾处理设备 Medical Waste Management Equipment

使用悬浮容器和旋转研磨刀片来研磨所有类型的废物，包括金属物体。使用微波对生物危险废物进行消毒并转化为惰性城市垃圾，使其体积减少80%以上，重量减少25%。

全面去污：生物危险废物用微波消毒(将其加热到110°C 20分钟)，并允许高达8log10的微生物灭活。

安全处理：微波灭菌技术不需要加压，这消除了任何爆炸风险。此外，微波被限制在容器内部，以避免操作员暴露在辐射中。

无液体流出物：处理过程不产生任何蒸汽或液体流出物，这意味着不消耗水，也不需要在其安装中包括污水排放系统。

没有隔离：适用于所有类型的生物医学废物(针头、玻璃、固体、液体等)

Its innovative concept uses a suspended vessel and rotating grinder blades to grind down all types of waste, including metallic objects. Biohazardous waste is sterilised using microwaves and converted into inert municipal waste, reducing its volume by more than 80% and its weight by 25%.

Full decontamination: Biohazardous waste is sterilised with microwaves (heat it up to 110° C for 20 minutes) and allows microbial inactivation of up to 8log10.

Safe processing: Microwave sterilisation technology does not require pressurisation, and this removes any risk of explosion. Moreover, the microwaves are confined to the inside of the vessel to avoid operator exposure to radiation.

No liquid effluent: The treatment process does not produce any steam or liquid effluent, which means no consumption of water and no need to include an effluent drainage system in its installation.

No segregation: The Sterilwave is suitable for all types of biomedical waste (needles, glass, solids, liquids, etc.)



## 医美仪器 Medical Beauty Instrument

### 激光生发仪 Laser hair growth device

激光生发仪通过增加皮下组织的三磷酸腺苷(ATP)的活动，促进组织的新陈代谢帮助提升血液循环，令氧气及营养送往毛囊，防止脱发；有效刺激毛囊，调节油脂分泌加速毛发生长，并加强头发本身的强度、密度以及头发的弹性；激光生发仪无痛，无创伤，无耗材，使用简单高效。采用德国hydrosun发光器。

The laser hair growth device increases the activity of adenosine triphosphate (ATP) in the subcutaneous tissue, promotes the metabolism of the tissue, helps improve blood circulation, sends oxygen and nutrients to the hair follicle, and prevents hair loss; effectively stimulates the hair follicle, regulates oil secretion, accelerates hair growth, and strengthens the hair itself. The strength, density and elasticity of the hair; the laser hair growth device is painless, non-invasive, no consumables, simple and efficient to use. Using German hydrosun illuminator.

### 激光治疗仪 Laser therapy device

特殊波长红外红光对人体病患部位进行物理照射，能促进毛细血管扩张、改善局部血液循环、缓解肌肉痉挛、镇痛及促进组织再生等生理和治疗作用。采用德国hydrosun发光器，触摸屏控制，带安全脚踏开关。

The physical irradiation of special wavelength infrared red light on the patient's body can promote telangiectasia, improve local blood circulation, relieve muscle spasm, relieve pain and promote tissue regeneration and other physiological and therapeutic effects. Adopt German hydrosun illuminator, touch screen control, with safety foot switch.



## 机器人疗法解决方案 Robotic Therapy Solutions

下肢运动功能障碍是脑卒中、颅脑损伤、脊髓损伤等患者常见的后遗症之一，患者往往无法恢复和准确掌握步行运动技能。以神经可塑性原理为基础的机器人步态训练，能够最优化患者大脑运动功能的重塑，达到“积跬步，以至千里”的效果，最终帮助患者重新掌握步行运动技能。

多体位智能下肢康复机器人训练系统是科技进步的结晶，包含了尖端的传感器、精密机械、电子、自动化控制、虚拟情景互动软件等技术，为患者提供量化的、多体位的、多种运动模式的步态训练，同事实时提供数据信息反馈。

Lower limb motor dysfunction is one of the common sequelae in patients with stroke, craniocerebral injury, spinal cord injury, etc. Patients often cannot recover and accurately master the walking motor skills. Robot gait training based on the principle of neural plasticity can optimize the remodeling of patients' brain motor function, achieve the effect of "accumulation of steps, even thousands of miles", and finally help patients to regain the walking skills.

The multi-position intelligent lower limb rehabilitation robot training system is the crystallization of scientific and technological progress, including cutting-edge sensors, precision machinery, electronics, automatic control, virtual scene interaction software and other technologies, to provide patients with quantitative, multi-position, multiple motion mode of gait training, colleagues to provide real-time data feedback.

