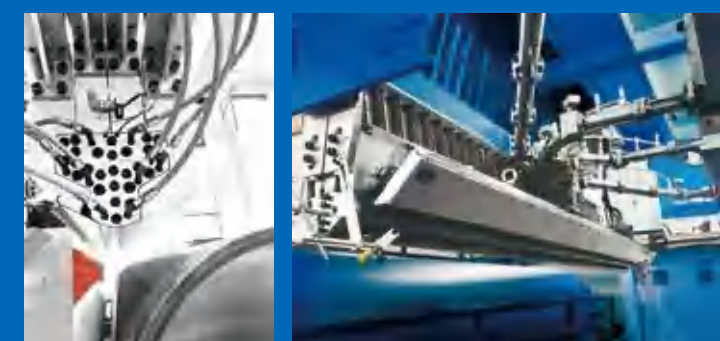




挤出核心零部件 CORE COMPONENTS FOR EXTRUSION





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Single Screw & Barrel

挤出机单螺杆和机筒



材料

- 优质合金钢
1) 38CrMoAlA(JIS SACM645)
2) 42CrMo(JIS SCM440)
3) 9 Cr18MoV
4) SKD11
5) 哈氏合金C276
6) 锌3#钢

Material

- High quality alloy-steel
1) 38CrMoAlA(JIS SACM645)
2) 42CrMo(JIS SCM440)
3) 9 Cr18MoV
4) SKD11
5) C276
6) GH113

热处理

- 渗氮处理
电镀硬铬层
中高频淬火
喷涂耐腐蚀耐磨双金属层
真空淬火

Heat-treatment

- Nitriding treatment
Electroplated hard-chrome finish
High frequency quenching
Spray bimetallic coating
Vacuum quenching

应用

- 1) 用于塑料制品挤出：管材挤出、片材、板材、吹膜淋膜、中空吹塑
2) 用于化纤挤出：PET、PA6、薄膜、无纺布、绳索纤维
3) 用于塑料回收造粒
4) 用于电缆挤出：适合PVC、PE、PBT、和塑胶氟化物

Applications

- 1) For plastic product extrusion: Pipe extrusion, sheet, plate, Blow film & blow molding
2) For chemical fiber extrusion: PET, PA6, film, non-woven fabric, rope fiber
3) For plastic recycling and pelletizing
4) For cable extrusion: PVC, PE, PBT and rubber fluoride

Pipe Series Screw

管材系列螺杆

该系列的螺杆主要针对各类管材挤出而设计，螺杆结构分为普通型和高效型两种，新型的高效螺杆采用分离型加屏障加混炼的结构，机筒采用分体式、内孔拉螺旋槽的结构，能够大大提高生产线的挤出效率，同时针对螺杆在高转速、大产量的使用工况下，螺棱出现过渡磨损的情况。可以采用等离子堆焊三面合金处理，提高螺杆使用寿命。

The screw of this series is mainly designed for all kinds of pipe extrusion. The screw structure is divided into two types: general type and high efficiency type. The new high efficiency screw adopts the structure of separating type with barrier and mixing, and the barrel adopts the structure of separating type with inner hole pulling helical groove, which can greatly improve the extruding efficiency of the production line, and at the same time, reduce the screw in the use of high speed and large output, the screw prongs of the situation of transitional wear. Plasma surfacing three-sided alloy treatment can be used to improve the service life of the screw.

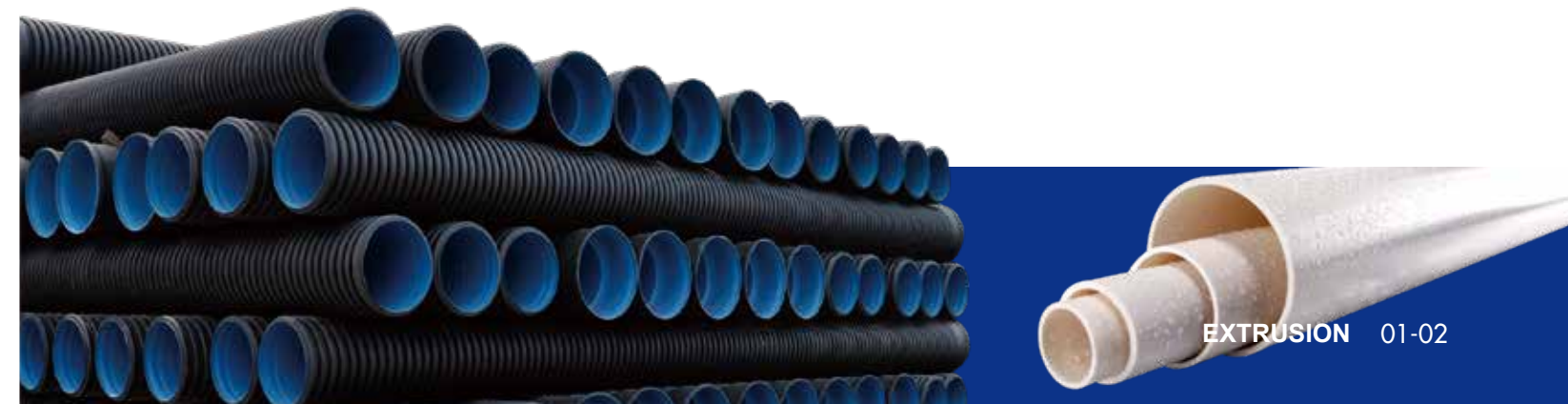


主要应用领域

HDPE/MDPE供水管及燃气管，PE、PP等聚烯烃类供水、燃气管，PPR/PE-RT/PEX等小口径管材，PE/PP波纹管等。

The main applicatons

HDPE/MDPE water supply and gas pipe, PE, PP and other polyolefins, such as water supply, gas pipe, PPR/ PE-RT/PEX, small tubes, PE/PP DWC pipes etc.



Plate, Sheet, Film Series Screw

片板膜系列螺杆



该系列的螺杆主要针对片材、板材和膜类产品的挤出而设计，针对不同类的片板膜产品采用专业化的螺杆设计。片板类产品可采用排气式的螺杆，膜类螺杆通常采用结构复杂的分离型或屏障型螺杆。

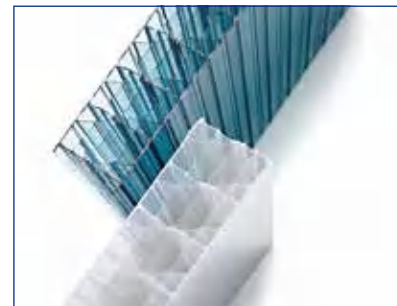
This series of screw is designed for extruding of plates, sheet and membrane products, and it is designed for different types of plate membrane products. The plate type products can adopt the venting type screw, the membrane screw usually adopts the structure complex separation type or the barrier type screw.

主要应用领域

PE防水卷材，PET片材，PP/PE/PS环保吸塑包装片，ABS/PMMA复合洁具板，ABS/HIPS/GPPS冰箱板，PC/PP/PE中空格子板，PE铝塑板，PE/PP包装膜、流延膜等。

The main applicatons

PE waterproof membrane, PETsheet, PP/PE/PS enviromental thermo-forming package, ABS/PMMA compostite sanitary ware, ABS/HIPS/ GPPS refrigerator plate, PC/PP/PE hollow cross section board, PE aluminum composite sheet, PE/PP package&cast film etc.



Blow Molding Series Screw

中空吹塑系列螺杆



该系列的螺杆主要针对中空吹塑系列产品的挤出而设计，针对不同类的中空吹塑产品采用专业化的螺杆设计，采用屏障加混炼的结构设计，保证螺杆挤出稳定和极佳的塑化效果。

The series of screw is manily in view of the designed extrusion blow molding products, aiming at different kinds of blow molding products adopt professional screw design. Uses the barrier and the structure design of the mixing ensure screw extrusion stability and excellent plasticizing effect.

主要应用领域

各种规格的机油壶、润滑油壶、冷却水箱，各种规格的汽车座椅、随车工具箱、风道风管、导流板、保险杠、尾翼等，各类异形管件制品，吹塑托盘类产品，各种堆码桶，化工包装桶等。

The main applicatons

All kinds of machine oil pot, oil pot, cooling water tank, all kinds of car seats, the accessory kit, duct, guide plate, bumper and rear wing, all kinds of special-shaped pipe fittings products, blow molding tray products, all kinds of stacking bucket, chemical packaging barrels, etc.



Chemical Fiber Series Screw

化纤系列螺杆

化纤系列的螺杆主要针对各类化纤纺丝设计，螺杆采用 LTM 型销钉设计，挤出稳定，塑化均匀。

The screw of chemical fiber series is designed for various kinds of chemical fiber spinning, and the screw is designed as LTM pin, extruding stability and plasticizing uniformity.

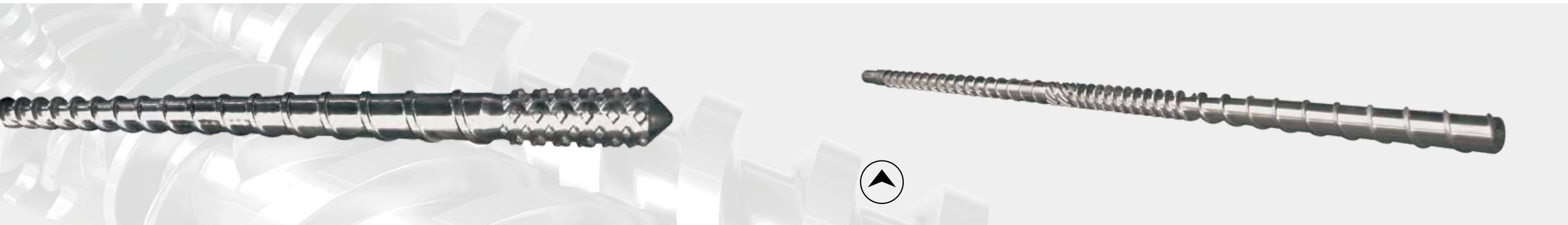


Granulator Series Screw

造粒系列螺杆

造粒系列螺杆主要针对各类废旧塑料的回收利用，螺杆结构主要采用排气式的设计，在挤出过程中能有效地排出物料中的水份和挥发物气体，有利于粒子质量的稳定。

Granulator series screw is mainly aimed at all kinds of waste plastic recycling, screw structure mainly adopts the design of exhaust type, can effectively discharge in extrusion process material moisture and volatile matter in the gas, is conducive to the stable quality of particles.



主要应用领域

涤纶、锦纶、氨纶、丙纶纺丝。

The main applicatons

Polyester, nylon, spandex, polypropylene spinning.



主要应用领域

包括PE/PP等管材、厚板材破碎料造粒，PS/ABS/PET等片材破碎料造粒，PE/PP薄膜、编织袋造粒，PA/PET等废丝料造粒等。

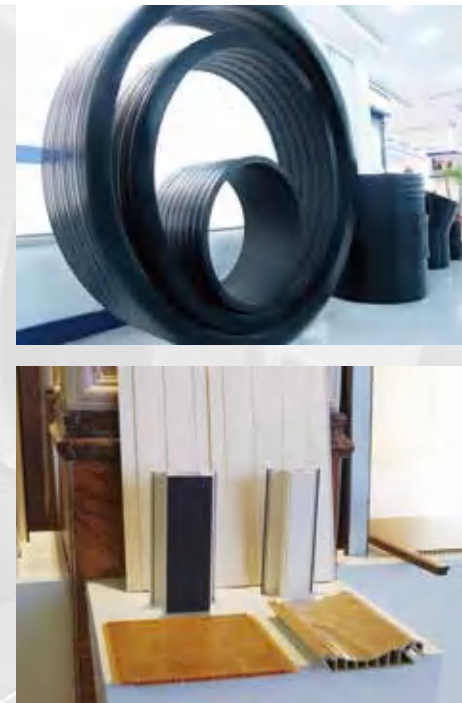
The main applicatons

Include PE/PP, pipe, thick board recycling material pelletizing PS/ABS/PET sheet recycling material pelletizing PE/PP film、woven bag recycling material pelletizing PA/PET waste yarn pelletizing.



Conical Twin-screw

锥形双螺杆



主要应用领域

包括PVC管材,PE/PP/PVC木塑挤出, PVC结皮发泡板, PVC异型材, PVC/PP波纹管, PVC地板革类产品, PVC防水卷材等。

The main applicatons

Including PVC pipe, PE/PP/PVC WPC extrusion, PVC Skining foaming plate, PVC profile, PVC/PP corrugated pipe, PVC floor leather products, PVC waterproof membrane, etc.

该系列的螺杆主要针对PVC类产品而设计, 锥形双螺杆转速低, 物料在机筒内的剪切作用稳定、均匀, 螺杆较短, 物料停留时间短, 特别适合热敏性物料的塑化成型加工。

This series screw designet for PVC products mainly, conical twin screw rotate in lower speed, the material inside the barrel under a stable and uniform shear, shorter screw, shorter duration time of material, especially suitable for heat-sensitive material plasticizing processing.



Counter-rotate Parallel Twin Screw

异向平行双螺杆



主要应用领域

包括PVC管材、型材的挤出, PE/PP片板类产品等。

The main applicatons

Includes PVC pipe & profile extrude, PP/PE sheet product.



该系列的螺杆主要由两根平行的圆柱形螺杆组成, 螺杆旋向正反相反。平行双螺杆转速低, 产生的热量较少, 物料在机筒内的剪切作用稳定、均匀, 螺杆对物料的输送能力强, 同时具有较好的排气效果, 有利于产品质量的稳定。

The screw of the series consists mainly of two parallel cylindrical screws, which rotate to the opposite direction. Parallel double screw rotational speed is low, less heat, shear stability of the materials in the barrel, uniform, screw for material conveying ability is strong, have good exhaust effect at the same time, is conducive to the stability of product quality.



Alloy Series

合金系列



双合金溶胶机筒方面，从以往的合金含钨10%提升至含碳化钨30%及50%，可加工长度增加从3000mm提升至4000mm。

In the case of bimetallic barrel for melt, the carbon tungsten containing has been raised from the previous 10% to 30% and 50% now, the processing length increased from 3000mm to 4000mm.

双金属机筒基材料: 45#40r

双金属方式: 离心浇注

用途区分: 注塑成型机械用/挤出机械用

加工范围: 内径Φ12-Φ300mm

有效长度: 12000mm

氮化深度: 0.50mm-0.80mm

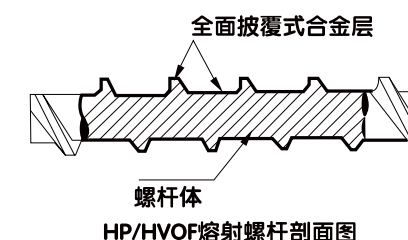
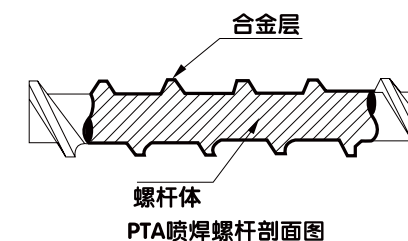
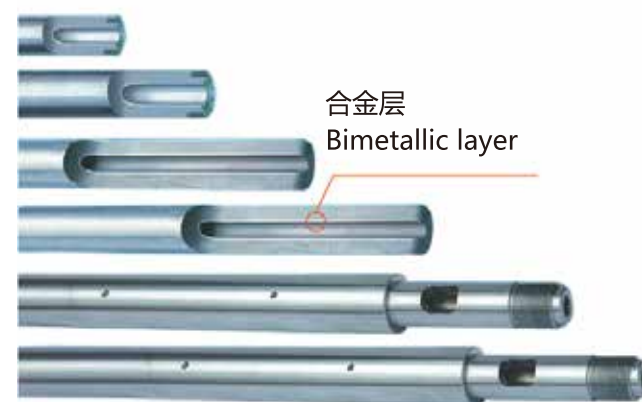
氮化硬度: HV960以上

直线度: 0.015mm/m

镀铬厚度: 0.02mm-0.085mm

适用塑胶范围: 普通塑料PP、PE、ABS、AS、PS等

材质成分: SACM645、SCM440、38CrMoALA



双合金螺杆也从以往的PTA牙顶喷焊，更新设备采用高压速（HP/HVOF）全面合金披覆的熔射技术。WPT1耐腐蚀型合金适用于尼龙PVC、PC、PMMA等，WPT2耐磨耐高温型合金适用于尼龙玻纤、磁粉、铝镁粉、电木注塑等，WPT3兼有WPT1、WPT2两种特性，耐磨耐腐蚀性耐高温。

Adopts new generation technology HP/HVOF totally bimetallic coating spraying instead of PTA ridge spraying welding. WPT1 anti-corrosion type application: nylon, PVC, PC, PMMA etc. WPT2 resistant wearing and high temperature application: nylon with glass fiber magnetic powder, Al Mg powder, Bakelite injection and etc. WPT3 has WPT1 and WPT2 advantages.

Base material of bimetallic barrel:

Bimetallic type:

Application:

Products range:

Effective length:

Nitriding layer thickness:

Nitriding layer hardness:

Straightness:

Chrome coated layer:

Suitable plastic material:

Screw base material:

45#40r

centrifugal casting

for injection molding machine and extrusion machine

inner diameter Φ12-Φ300mm

12000mm

0.50mm-0.80mm

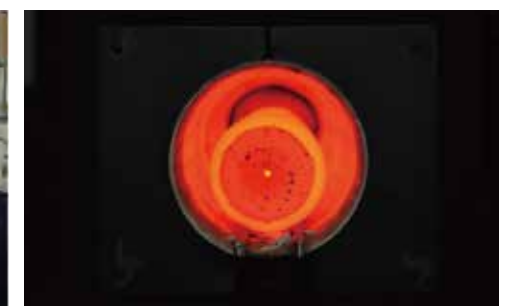
HV960

0.015mm/m

0.02mm-0.085mm

PP、PE、ABS、AS、PS etc.

SACM645、SCM440、38CrMoALA



Injection Machine Screw

注塑机螺杆



注塑螺杆是塑料注塑机的核心部件，通常螺杆包含螺杆头和止逆环，机筒包含前体和射嘴。螺杆结构的通用性比较强，通常为普通三段式螺杆，为提高塑化能力可设计成屏障型或分离型螺杆机构。

The injection screw is the core part of plastic injection molding machine, and usually the screw consists of screw head and check ring, and the barrel contains the front and nozzle. The use of screw structure is strong, and it is usually a regular three-stage screw, which can be designed as a barrier type or separating screw mechanism to improve the plasticizing ability.

注塑螺杆主要应用领域为各类注塑制品的生产加工，包括PE、PVC、PP、PC、PA、PET等物料的加工。

The main application of injection molding screw is the processing of various kinds of injection molding products, including PE,PVC,PP,PC,PA,-PET, etc.



Our Ability In Roller Making

我们的辊筒制造能力

公司在辊筒制造领域积累了丰富的经验，与你共享。我们的产品广泛用于塑料片材薄膜加工、无纺布、皮革加工、造纸、印刷业和钢铁制造（薄型片材）等领域。在这里，无论是辊筒的几何尺寸，圆周度，表面光洁度，还是使用寿命，我们都力求达到最高的性能指标。杰威尔公司有多种大型、先进的装备专用于辊筒制造，其中包含了一些目前行业中最先进的加工设备如：可处理14米长工件的热处理车间、专业的电镀硬铬车间、可加工14米的磨床和镗孔设备等。

Machinery would like to share our many years' rich experience in the roller area. Our products are widely used in plastic sheet and film processing, non-woven fabric, leather processing, paper making, printing, thin steel manufacturing etc. We are trying our best to reach the highest performance index for the geometry dimensions, roundness, roughness of the surface and the using life. Jwell have various kinds of large and advanced equipment dedicated to rollers, including the most advantage manufacture equipment: the heat treatment workshop for 14 meters working piece, profession electroplate workshop, the boring and grinding machine can machine the 14 meters working piece etc.

- 辊筒最大直径和长度: $\Phi 1600 \times 14000\text{mm}$
- 工件最大重量: 25000kg
- 圆柱度、同心度精度: $\leq 0.01\text{mm}$
- 表面粗糙度: $Ra \leq 0.01\mu\text{m}$
- Max. diameter and length of the roller: $\Phi 1600 \times 14000\text{mm}$
- Max. weight of the roller: 25000kg
- Roundness and coaxiality: $\leq 0.01\text{mm}$
- Roughness of the surface: $Ra \leq 0.01\mu\text{m}$



Super Mirror Roller

超级镜面辊



用于光学级板材、片板、薄膜制品:

超级镜面对于光学级塑料板材、片材、薄膜生产设备来说是一个不可缺少的重要部件。其规律是：辊筒表面越光，越精密，生产出的制品质量就越好。因而，我们努力达到最小的表面粗糙度公差。

生产出的光学级制品主要应用于LED面板、电子、电器工业的薄膜开关；电脑、手机液晶显示屏等高端领域。

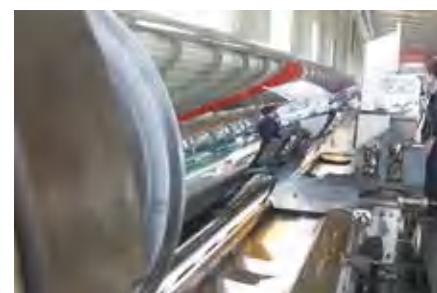
For optical plate, sheet, film product:

Super mirror surface roller is a key part of sheet and plate equipments. The rule is that the more smooth and precise the roller surface, the better the product quality. And, we always strike for the smallest possible surface roughness tolerance to the level of Ra0.005um.

The optics grade product is applied for producing LED panels, electronics, thin-film switch of electric appliances, and high end consumer products section like PC monitor, mobile phone screen and etc.

辊筒特点 Features

- 超镜面辊筒表面光洁度可以达到 $Ra \leq 0.01 \mu m$;
- 辊筒的圆柱度、同轴度均可达到 $\leq 0.005 mm$;
- 特殊的结构设计以保障极强的辊筒刚性和表面温度误差最小;
- The surface roughness level of the roller can be reached $Ra \leq 0.01 \mu m$;
- He (the) cylindricity and cocentricity of the roller can be reached $\leq 0.005 mm$;
- Enhanced roller rigidity and minimized roller surface temperature deviation through special roller structure design.

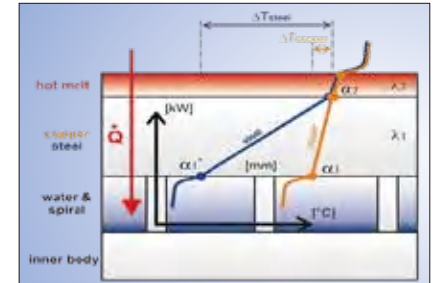


Thin-Wall Efficient Roller

薄壁高效辊筒

薄壁高效辊筒的辊面外壳厚度仅为标准辊筒外壳厚度的50%-70%；内部减少螺棱支撑点的面积以增大冷却水的接触面积和热转换效率。为抵消辊面较薄的强度减弱，采用了整体圆弧形流道以增加承压强度。相同的工况环境，使用薄壁高效辊筒的片材设备产量增加了20%-50%。

For the thin-walled high-efficiency roller, the surface shell thickness is only 50%-70% of the standard roller; by reducing the area of the strikes, and enlarging the contact area with cooling water, the thermal conversion efficiency is increased. And to offset the roller rigidity, the overall circular runner design is adopted to increase the intensity of the roller. Under the same working condition, the thin wall high efficiency roller boosted plate and sheet line output by 20% to 50%.



辊面处理 Roller surface treatment

- 经调质处理，确保组织结构密实
- 外表面深层次淬火，硬度达到HRC55~58
- 表面电解镀铬，硬度达到HRC60~62
- Quenching with Subsequent tempering, ensures the density of the structure
- Outer surface deeply quenched, the hardness can be reached HRC 55~58
- Surface electrolyze hard chromed, the hardness can be reached HRC 60~62

表面处理 Surface treatment

- 镜面、超镜面研磨抛光加工
- 可加工各种消光、雾面、磨砂、喷涂层等表面
- Mirror roller, super mirror roller grinding and polishing processing.
- Different kinds of roller surface treatments are available, such as leather veins, matt, mist, frosting, net veins and etc.

Casting Film Roller

流延膜用辊筒



制造的流延膜用辊筒采用严格的欧洲专业制造标准，经过多道焊接和热处理工艺，保证辊筒的整体结构坚固可靠。

为了确保其高效的热交换效果，流延辊筒的流道均为特殊的螺旋形设计，并对通过流道的冷却液流量进行精确的计算，从而尽可能的减小辊筒表面温度误差，提高了产品的温度均匀性。

流延膜用辊筒的动平衡精度尤为重要。专用的大型动平衡校验设备和多种平衡检测方案，使其在高转速下运行平稳。

Manufactured casting film roller strictly according to European professional manufacturing standards. Several steps of welding and heat treatment process are applied to give assurance to the overall rigidity and reliability of roller structure.

In order to ensure its efficient heat exchange, casting roller flow channel are designed with the special spiral, and through accurate calculation of the coolant flow, the roller surface temperature deviation are reduced to the least possible. It improves the temperature uniformity of the product.

The most important is the precision of dynamic balancing of roller. Specialized large dynamic balance calibration equipment and a variety of balance detection scheme, ensures smooth operation at high rotation speed.



较高的生产线速度要求流延膜用辊筒具有极高的转速、精确的动平衡精度、快速均衡的热交换效率。

High speed of casting film production line means very high rotation speed of the roller, and this requires precise dynamic balancing, high and balanced heat exchange efficiency.

辊筒特点 Features

- 最大的辊筒直径：Φ1600mm
- 辊筒的圆柱度、同轴度均可达到 $\leq 0.01\text{mm}$
- 辊筒表面镀铬，镀层厚度 $50\sim 80\mu\text{m}$
- 辊筒表面温度误差 $\pm 0.5\sim 1^\circ\text{C}$
- 表面抛光镜面、超精镜面、毛面/雾面、防粘辊面处理
- 整体变形：全负荷时 $< 0.05\text{mm}$
- 平衡精度等级可达到G2.5

- Roller diameter: max. 1600 mm
- Roller cylindricity, concentricity both $\leq 0.01\text{mm}$
- Roller surface hard chromium plated, coating thickness is $50 \sim 80 \mu\text{m}$
- Roller surface temperature deviation $\pm 0.5\sim 1^\circ\text{C}$
- roller surface treatment: mirror polished, super finishing mirror, matt, mist and anti adhesive surface
- Overall deformation: $< 0.05 \text{ mm}$ at full load
- Best dynamic balance G2.5



Roller for Bi-Oriented Stretch Film Production Line

双向拉伸膜生产线用辊筒

公司不但致力于塑料板材、片材用压延辊筒的设计制造，同时也为塑料薄膜领域提供高品质的辊筒。

引进国外先进的制辊技术，我们为流延膜设备、拉伸膜设备提供高品质辊筒。如激冷辊、拉伸辊、预热辊、牵引辊、电晕辊、橡胶辊、TEFLON辊等。

生产塑料薄膜用辊筒的极高转速，使辊筒的动平衡精度显得尤为重要。专用的大型动平衡校验设备和多种平衡方法使这些要求得到有效的保证。

薄膜制品成型对辊面温度误差的要求很严格。带内螺旋循环流道的辊筒是一项高技术含量的产品，具有极强的热交换能力和辊筒作业表面容许的最小温度波动。

Not only focuses on the design and manufacture of the roller of plastic plate sheet, meets the requirement of the clients, but also supplies the high quality roller for the plastic film business area.

We import the foreign advanced roller manufacture technology, supply the high quality roller for the machine of casting film and stretch film. Such as chill roller, stretch roller, preheat roller, pull roller, corona roller, rubber roller, TEFLON roller etc.

The roller rotate in higher speed when produce the plastic film, so that high precision of the roller dynamic balance is important particularly. Our specified large dynamic balance testing equipment and various balance process can ensure these request effectively.

According to the strict molding request of final film product to the temperature error on the roller surface, The roller which has the spiral inner flow channel is a high-tech product, it has a very good heat exchange ability and this roller can reach the minimum temperature fluctuation which is allowed in production.



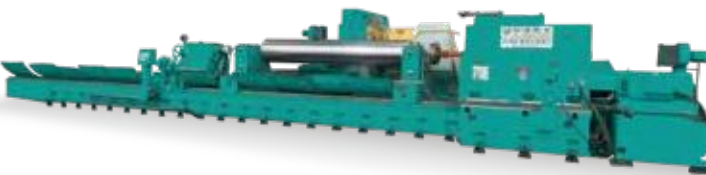
我们的辊筒制造能力
Our manufacturing capacity of roller:
● 辊筒最大加工长度 Max. machining length :14000mm
● 辊筒最大加工直径 Max. machining diameter: Φ1600 mm
辊筒制造精度
Manufacturing precision of roller:
● 同轴度 Concentricity: ≤ 0.01mm
● 圆柱度 Cylindricity: ≤ 0.01mm
● 表面粗糙度 Surface roughness: Ra≤0.01 μ m
辊筒表面处理
Roller surface treatment:
● 电镀硬铬涂层 Electroplate hard chrome coating
● 橡胶包覆涂层 Rubber overlay coating
● 不锈钢包覆层 Stainless steel overlay coating
● 特氟仑等特种涂层 Special coating like TEFLON etc.

广泛应用于BOPP、BOPET、BOPA、BOPI等双向拉伸生产线以及生产锂电池隔膜设备配备的拉伸辊、干燥辊和萃取辊等多种类辊筒,辊筒具有满足该设备的高要求，高精度，保证隔膜生产中的稳定性。

Widely used in bi-directional stretching production lines such as BOPP, BOPET, BOPA, BOPI, etc. the production of lithium battery diaphragm equipment is equipped with various types of rollers such as stretching rollers, drying rollers and extraction rollers. The rollers meet the high requirements of the equipment, high precision, and ensure the stability of the diaphragm production.

- 特点:**
- 辊筒最大长度: 14 米
 - 辊筒圆柱度、同轴度≤0.03m m
 - 静平衡校正，动平衡校正G2. 5
 - 辊筒材料: SUS304L、SUS316L、Q345D、45#等

- Characteristic:**
- Maximum roller Length: 14 m
 - Roller cylindricity and coaxiality≤0.03mm
 - Static balance correction, dynamic balance correction G2. 5
 - Roller material: SUS304L, SUS316L, Q345D, 45# etc



由于拉伸膜辊筒对于膜张力、包覆角度、高线速度、温度精确控制等较高的要求，所以对于每个高要求辊筒都将提供以下验证： Due to the higher request for the tension / coated angle/ high line speed/ temperature precision control of the stretching film roller, we can provide the following certificates for each roller:	
● 轴材质	● Shafts material
● 外套材质	● Outer jacket material
● 尺寸和几何报告	● Dimension and geometrical report
● 粗糙度(测量辊面两边和中间)	● Roughness (measures on the sides and in the center of the table)
● 镀铬硬度	● Chrome coating hardness
● 镀铬厚度(测量辊面两端和中间)	● Coating thickness (measures on the sides and in the center of the table)
● 最高达到 G2.5 级的平衡报告(机器打印)	● Final balancing reach to G2.5 (machine Printed)
● 重量, 惯性, 在极值速度, 自重情况下的挠度	● Weight, inertia , d é flection under own weight, critical speed
● 防止渗漏的静态压力试验	● Static pressure test to prevent the leakage
● 辊面温度差异	● Temperature difference on the table surface
● 冷却水流量	● Cooling water flow
● 进出水压差异	● Inlet/Outlet water pressure difference

Chill Roller,Casting Roller

激冷辊、铸片辊



产品广泛应用于BOPP、BOPET、BOPA、BOPS、BOPI等各种双向拉伸生产线和纵向拉伸生产线的母片铸片成型，采用特殊的内部循环流道设计，提高热转换效率及温控精度，更换技术升级后的辊筒，可提高20%-30%的铸片效率。

This product is widely used in master casting forming of BOPP, BOPET, BOPA, BOPS, BOPI biaxial oriented stretching line and longitudinal stretching line. Special inner circulation channle is designed to improve the heat conversion efficiency and temperature control accuracy. After replacing with this kind of technically updated roller, the casting effeciency will rise by 20%-30%.

辊筒特点 Features

- 最大直径 1600mm
 - 变径交错螺旋流道
 - 表面温度精度 $\pm 0.5^{\circ}\text{C}$
 - 高效热交换技术性能
 - 高精度动平衡校正
 - 超高质量的镜面处理
 - 螺旋流道的防腐处理
- Max diameter 1600mm
 - Variable diameter alternating spiral flow channel
 - Surface temperature precision $\pm 0.5^{\circ}\text{C}$
 - High efficiency heat exchange technology performance
 - High precision dynamic balancing correction
 - High quality mirror face processing
 - Anti-corrosion treatment of spiral flow channel



铸片系统是薄膜拉伸生产线中至关重要的一个环节，铸片成型的母片精度最终决定了拉伸后成品膜的质量，公司生产的铸片辊筒，在国内欧洲进口的高端拉伸生产线上得到了广泛的应用，经过实际应用的效果，得到了客户一致认可与好评。

Casting system is a step of of vital importance in film stretching line. The finish film quality after stretching will be finally based on master precsion of casting system. This casting roller manufactured by Machinery has already been used a lot in high level stretching line import-ed from Europe and its performance in practical application obtains unanimous approval and favorable comment from customers.



Embossing Roller

精密花纹辊筒



花纹辊用于PMMA、PC 板材、PP 片等多种塑料片、板材的表面成型处理。辊面可以加工成各种花纹形式，采用激光电子扫描与分色技术，将客户来样图像转化成高清晰度数字影像信息直接录入雕刻机复制雕刻出高质量的辊面花纹。辊面花纹的仿真率高达98%以上。

在辊筒表面进行喷砂处理，按照目数的大小，使辊筒表面达到消光、亚光及雾面和毛面的效果。

制品应用于灯具、装潢、皮革、汽车等多种领域。

Embossing roller is used for surface treatment of plastic sheets and boards like PMMA, PC, PP and etc. Roller surface can be processed into a variety of decorative patterns. The sample image will be converted into high resolution digital image information with laser scanning electron and color separation technology and then loaded directly into the carving machine, and high quality roller surface pattern will be carved out by the carving machine. The roller surface pattern simulation rate is above 98%.

Sandblasting processing is applied to the roller surface. According to the size of the mesh, the roller surface will have the effect of dull, matt, mist, and rough effect.

Products applied to the various fields like lighting appliances, decoration, leather products, automotive and so on.

辊筒特点 Features

- 辊面材料可采用45钢、38CrMoAl、42CrMo、60CrMoV，不锈钢材料等；
- 多种内部流道设计，辊面温度均匀，确保制品表面花型的均匀一致；
- 表面电镀层硬度达到HRC60-62，延长花纹辊的使用寿命。
- Roller surface material includes 45 # steel, 38CrMoAl, 42CrMo, 60CrMoV, and etc;
- Both the diversified internal runner design, and the roll surface temperature uniformity technology, ensure the uniformed pattern on the product surface;
- Surface plating hardness can be reached HRC60-62, prolong the service life of the embossing roller.



Roller for Drainage Board and Special-shaped Surface Forming

排水板、异形面成型辊筒

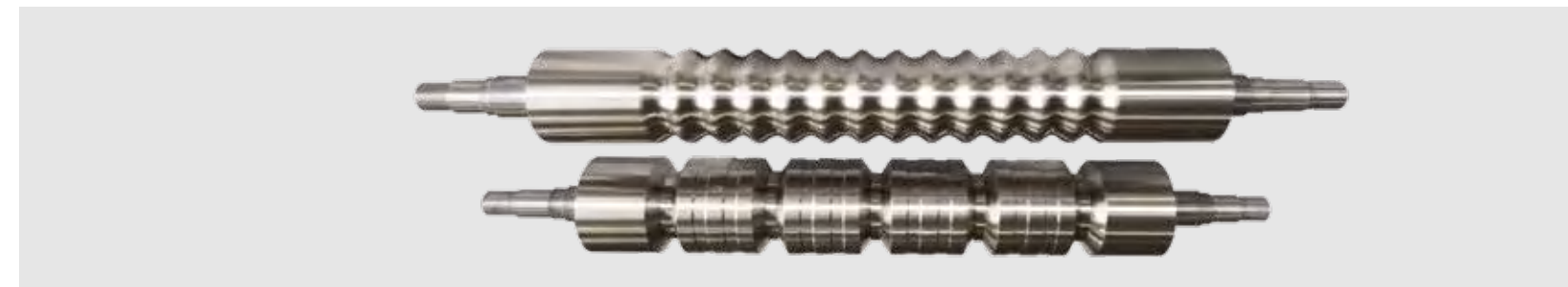


根据制品的不同用途，采用高精度的数控加工设备对辊筒表面做精密加工，并且充分考虑了制品成型过程中热胀冷缩、排气等特点。使通过异形面成型辊筒连续挤压成型的制品能够完全符合用户的需求。

制品应用于排水板、蜂窝板、止水板、气泡膜等多种用途。

According to the different material of products, and with full consideration to the product expansion and contraction, and gas venting nature, etc., we use high precision CNC processing equipment for the roller surface precision machining. The precision of the special surface forming roller will help ensure the quality of product to fully meet the need of users.

Products may apply to drainage board, honeycomb panel, water stop plate, bubble wrap and other purposes.



Electromagnetic Heating Roller

电磁加热辊筒

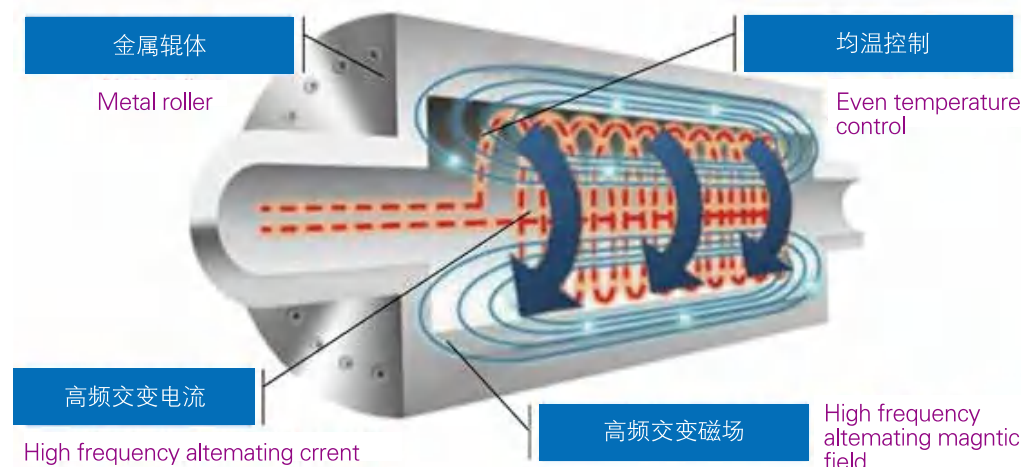


由于加热辊在各行业应用广泛，电磁加热辊正取代导热油加热辊，目前在激光防伪印刷、模压、汽车夹层玻璃复合、复合膜生产、医用胶带、药品包装、非织造无纺布生产、铝塑板胶合、化学合成纤维、橡塑压延等行业成功应用。

With the wide application of heating roller in various industries, electromagnetic heating roller is replacing heat conduction oil heating roller, so far electromagnetic heating roller is successfully used in laser anti-counterfeiting printing, die stamping, automotive laminated glass composite, composite film production, medical tape, pharmaceutical packaging, non-woven fabric production, aluminum-plastic panel agglutination, synthetic fiber, rubber and plastic calendaring and other industries.

辊筒特点 Features

- 节能——比导热油辊或蒸汽辊节能约 60% ；
- 温控精度高——温控精度达 $\pm 0.5^{\circ}\text{C}$ ；
- 升温速度快——从室温到 200°C 只需 25min ；
- 工作温度高——辊面工作温度可实现 400°C 以上，满足高温生产要求 ；
- 环保——全电气化控制，无油渍污染，生产环境清洁卫生。
- Energy saving - 60% energy saving comparing with the heat conduction oil roller or steam roller;
- High precision temperature control, temperature precision reaches $\pm 0.5^{\circ}\text{C}$;
- Faster heating up- takes only 25 min from room temperature to 200°C ;
- High working temperature, roller surface temperature can reach above 400°C for operation , satisfies the requirement of high temperature production;
- Environmental protection - all electric control, no oil pollution, clean production environment.



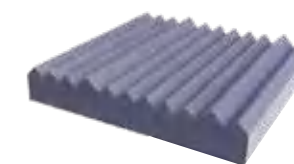
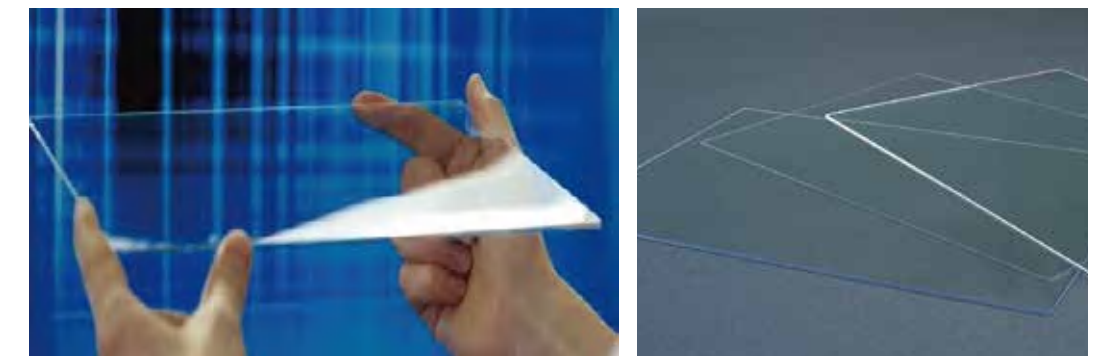
Micro-Structure Roller for Optical Film & Sheet

光学膜用途微结构辊

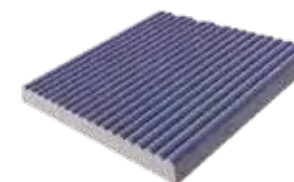


微结构辊经过在辊面镀铜、镀镍以后进行辊面微结构处理，制成高等级的光学片材或薄膜，成为 LED/LCD 面板的关键模块组件。制品应用于制作于 LCD/LED 背光的光学膜，棱镜片增光膜 (prism) 和微透镜膜 (micro lens)，3D 光栅膜，液晶显示屏、笔记本电脑、移动电话等领域。

Microstructure roller make the micro structure treat for the roller surface after the copperize, nickelage, to be the height class optics sheet or film which will be the key module parts of the LCD panel. The final product used in the LCD/LED display, mobile phone, 3D raster, prismatic lens and micro lens.



V 型结构 (正面结构)
V type structure
(the front side structure)



3D 结构辊
3D structure roller



Hot Mill Roller

热轧辊



热轧辊因其特殊的设计结构而具有较高的强度，韧性和耐热性。用于高密实度的塑料板材片材成型和无纺布加热复合。

选用优质合金钢38CrMoA1A, 42CrMo, 60CrMoV, 9Cr2Mo等作为本体材料，经机械加工、热处理成型，表面硬度可达HRC58~62。

内胆螺旋式和周边钻孔两种设计结构，采用内部安装螺旋内胆或辊体周边钻孔循环引导热油，使辊面两端温差更小，热效率更高。

Hot Mill Roller have superior strength、tenacity and heat resistance due to the special design structure. The roller can be used in high density plastic plate and sheet forming and non-woven fabric heat compounding.

The roller body select super quality alloy steel such as 38CrMoA1A, 42CrMo, 60CrMoV, 9Cr2Mo etc. The surface hardness can be reached HRC58-62 after the machining and heat treatment.

The roller inside structure design as spiral channel and circum drilling hole,the temperature difference between double sides of the roller will be smaller and the thermal efficiency will be higher.

辊筒特点 Features

- 辊筒整体强度高，高强度对压受力时变形小，制品厚度均匀；
- 热交换高效、均匀，辊面温度均衡稳定；
- 适用于 PC/PMMA 等较薄的塑料片材、无纺布、皮革的表面压光及压花。
- High overall intensity guarantees small deformation of roller under pressure, and ensures uniform product thickness;
- High efficiency and uniform heat exchange, stable roller surface temperature;
- Suitable for thin plastic sheet like PC/PMMA, non-woven fabrics, leather surface polishing and embossing.



Rubber Roller

橡胶包覆辊筒



橡胶辊的辊面包胶有三元乙丙胶、海派龙、丁晴胶、液体硅胶、固态硅胶、聚氨酯等。根据使用的环境工况，需要满足耐油、耐溶剂的性能。橡胶面的弹性、屈曲性、冲击性、耐磨损等物理性能都影响胶辊的质量和使用寿命。

高温用途易使橡胶老化，所以在选择优质的橡胶辊面的同时，辊芯的冷却设计也非常重要。采用大通水量的螺旋流道设计，使辊面温度均匀可控。

精密的研磨加工设备确保橡胶辊面与两端轴承的同轴精度，多种静平衡、动平衡校正工序，即使在转速极高的双向拉伸薄膜等生产线设备上使用也能够稳定、高效的运转。

Rubber roller surface include EDPM (Ethylene-Propylene-Diene Monomer), Hypalon, NBR, LSR (Liquid silicone rubber), Solid Silicone, Polyurethane, etc. According to the working conditions, there is the need to be oil resistant and solvent resistant. The elasticity, flexibility, impact resistance, wear resistance and other physical properties of the lining can affect the quality of the rubber roller and service life.

High temperature makes rubber aging easily, so except for choosing the high quality rubber for roller surface, the design of roller core for cooling is also very important. The spiral runner design for large flow capacity is adopted making roller surface temperature more uniform and under control.



Film Die Series

薄膜模头系列

6000mm CPP/CPE 流延膜模具系列

型腔结构按客户提供的原料定制设计。

流延膜模具采用了加长v形歧管流道，三角形分流技术以及特殊的稳流结构。有效减少了挤出过程中"M"或"W"形料流产生。模具配备自动调节系统，在生产过程中，通过膨胀螺栓实时自动微调，经测厚仪自动横向往复检测反馈数据，快速调节制品精度。

复合型共挤分配器可实现多层的共挤加工，通过更换分配芯棒可灵活实现不同层结构的转换。

浙江杰伟精密机械6000mm流延膜模具采用了优质2738模具钢。

6000mm CPP/CPE casting film mold series

The cavity structure is customized according to the raw materials provided by the customer.

This die adopts extended v-shaped manifold flow channel, triangular split flow technology and special steady flow structure. Effectively reduce the "M" or "W" shape flow during the extrusion process.

Easy to connect with existing equipment. The mold is equipped with an automatic adjustment system. During the production process, the expansion bolts are automatically fine-tuned at the same time, and the feedback data is automatically reciprocated by the thickness measurement equipment to quickly adjust the product accuracy. The composite co-extrusion distributor can realize multi-layer co-extrusion processing, and can flexibly realize the conversion of different layer structures by changing the distribution mandrel.

Zhejiang JWELL Precision Machinery Co., Ltd. 6000mm casting film mold uses high-quality 2738 mold steel.

EVA/POE Plastic Film Mold Series

EVA/POE胶膜模具系列

3050mm EVA/POE 胶膜模具系列

浙江杰伟3050mmEVA/POE胶膜模具采用了优质模具钢材2738，模具表面处理采用了镀硬铬处理技术。铬层厚0.03-0.05mm光伏模头性能对胶膜品质起到决定性的因素。

光伏模头性能对胶膜品质起到决定性的因素，优质的EVA或POE胶膜。具备良好的透光率、高阻隔率、抗冲击强度、以及优秀的光学性能及化学稳定性。

杰伟EVA、POE光伏模头，针对低温高压材料挤出，有效解决了太阳能胶片容易发生材料的交联、分解固化等现象。节约了生产成本与能源消耗，帮助客户实现大产量，交期短，质量高的EVA/POE胶膜制品。

3050mm EVA/POE plastic film mold series

The Zhejiang Jwell 3050mm EPE adhesive film die is made of high-quality 2738 die steel, and the die's surface is treated with hard chromium plating technology. With a chromium layer thickness of 0.03-0.05mm, the performance of the photovoltaic die head plays a decisive role in the quality of the adhesive film.

The performance of the photovoltaic die is a decisive factor for the quality of the adhesive film. High-quality EVA or POE adhesive film has good light transmittance, high anode barrier rate, impact strength, and excellent optical properties and chemical stability.

JWELL EVA, The POE photovoltaic die head effectively solves the phenomenon of crosslinking, decomposition and curing of solar film customers for the extrusion of low temperature and high pressure materials. It saves production costs and energy consumption, and helps customers achieve high-volume, short-term delivery and high-quality photovoltaic adhesive films.



Prepreg Tape Composite Material Mold Series

预浸带复合材料模具系列



连续纤维增强热塑性复合材料—是以热塑性树脂为基体，连续性纤维为增强材料，经过树脂熔融浸渍、挤压等工艺形成的高强度、高刚性、高韧性、可回收的新型热塑性复合材料。

CFRTP-UD单向带：CFRTP单向带为连续纤维经展开铺平并浸渍热塑性树脂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(0°方向)，无交织。产品幅宽300-1500mm可根据需求定制。

主要应用:汽车内外饰件、热塑性缠绕管道、体育休闲、家居建材、运输物流、航空航天。

- ◎ 平模头采用衣架结构出料可均匀调节
- ◎ 浸渍模具采用波形结构使熔体浸润充分纤维束分散均匀
- ◎ 型腔流道特殊加硬处理延长使用寿命

CFRTP(Continuous Fiber Reinforced Thermoplastic composites)-sbased on thermoplastic resin as matrix and continuous fiber as reinforcement material, a new type of thermoplastic composite material with high strength high rigidity, high toughness, and recyclable that is formed through resin melt impregnation, extrusion and other processes.

CFRT unidirectional tape is a single-layered fiber-reinforced thermo plastic composite sheet in which the continuous fibers are unrolled and laid and impregnated with a thermoplastic resin. It is characterized by fibers arranged parallel to each other (0°direction) without interlacing, Product width 300-1500mm, can be customized. automotive interior and exterior trims, thermoplastic winding pipes, sports leisure, homebuilding materials, transportation logistics. Transportation logistics: floor & inner liners and roof panels of rail vehicles, interior and exterior automotive trim, sleeper carriages, truck compartments, ship decoration panels container liners and roof panels:

The flat die adopts the hanger structure, and the material is uniform and adjustable.

The dipping die adopts a corrugated structure so that the melt is fully infiltrated and the fiber bundles are evenly dispersed. Special hardening treatment of cavity runner to prolong service life.



High-speed Film Coating Die Series

高速淋膜模头系列

公司生产的高速淋膜模头采用特殊T型歧管流道设计，配合手动内堵式宽度调节装置可在线不停机改变宽度，各级独立可调的封边系统可最大限度地减少厚边的形成，有效减少聚合物和基材的浪费。该类适用于生产宽度在5000mm以下，厚度0.012-0.12mm的PP、PE、PET、EVA等淋膜。

特点：

快速准确地调整宽度：封堵组件整体动作一次，完成封堵系统调整，待制品达到理想的边厚要求，封堵系统调整设置即被固定下来，再次改变宽度时无须再对封堵系统进行重新调整。

快速清理与维护：可快速打开除厚边宽度调节系统，方便清除导致模头拉线的碳化聚合物。

高效密封结构：采用先进的冷却密封结构，可确保长期生产不漏胶。

安全：采用全封闭内置不锈钢加热棒加热，高效节能。

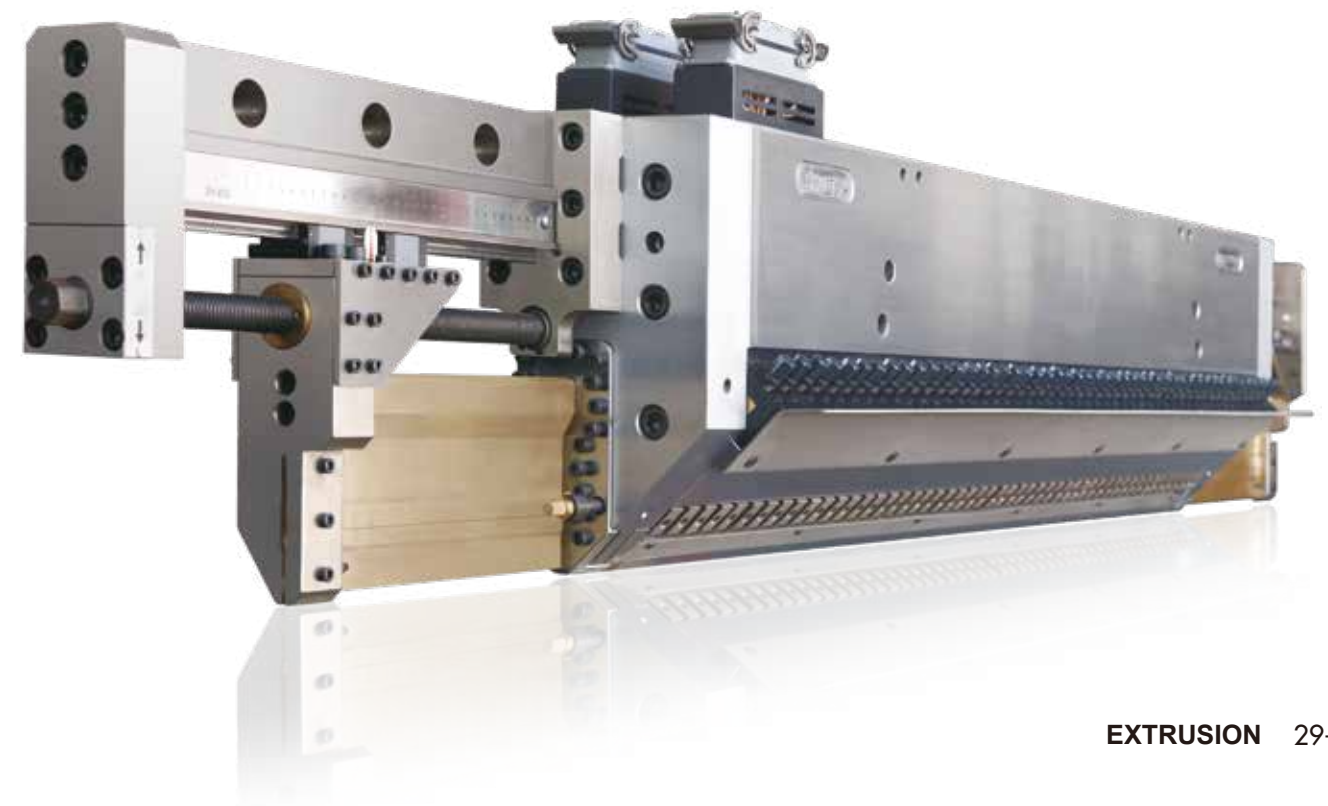
Jwell Company's high-speed film coating die adopt T-type thick edge with manual adjustment system to simplify the product width switching operation and online adjusting. Each independent edge adjusting system can minimize the thick edge issues. Thus effectively reducing the waste of the polymer and the substrate. This dies suitable for the produce the width below 5000mm, thickness of 0.012-0.12mm of PP, PE, PET, EVA coating products.

Quickly and accurately adjust the width: the overall action of the closure assembly to complete width adjustment. Once the products to achieve the desired edge thickness requirements, adjust the settings of the closure system is fixed down after repeated adjust the width are no longer re-adjust closure system.

Quick clean-up and maintenance: The operator can quickly open the thick edge width adjustment system, insert the brass scraper to remove carbonized polymer.

Highly efficient sealing Structure: Uses a unique cooling sealing structure, to ensure the long-term production of plastic does not leak.

Safety: Adopts incomplete closure of the built-in stainless steel heating, efficiency and energy saving.



Hollow Cross Section Plate Die Series

中空格子板模具系列



PC中空阳光板广泛适用于建筑装潢、采光隔热、隔音屏障等领域。中空阳光板模具配有均匀涂覆UV层的分配器，可生产宽度为2100mm的中空制品，其耐候性、抗紫外线、耐冲性、透光率等性能极佳。模具带有上、下弹性微调模唇可调节制品壁厚误差 $\leq 3\%$ 。

不同的结构设计适应各种产品要求，通用型阳光板厚度从4-25mm，多层结构板包括H型、X型等结构，厚度可达36mm以上，并可以双面涂覆抗紫外线层。

专用模具生产的PP、PE中空格子板因具有材质轻、强度高、防潮等性能适用于周转箱、灯箱广告、布展材料等方面。制品厚度范围2-12mm，宽度1200-2200mm。

PC hollow plate used widely in constructions and decorations. The hollow grid plate die and feedblock can make UV protection on both sides. The final production with a max width of 2100mm and have a high impact strength, good weather resistance and UV protection. With adjustable upper and lower mold lips, production thickness relative errors can be controlled within 3%.

Different design can meet the different requirements of products, general polycarbonate hollow plate whose thickness is between 4-25mm, multi-layers plate such as H-cross section, X-cross section etc, the thickness of some can reach 36mm, and the UV layer can be coated.

The PP, PE hollow grid plate produced by special dies are light weighted, dampproof and have a high impact strength, which is widely used as advertising light panel, exhibition upholster, carry box etc. The thickness-range is 2-12mm and the width is 1200-2200mm.

U type Lock PC Hollow Cross-section Mould Series

U型锁扣阳光板模具系列

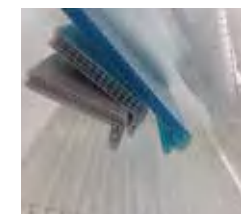
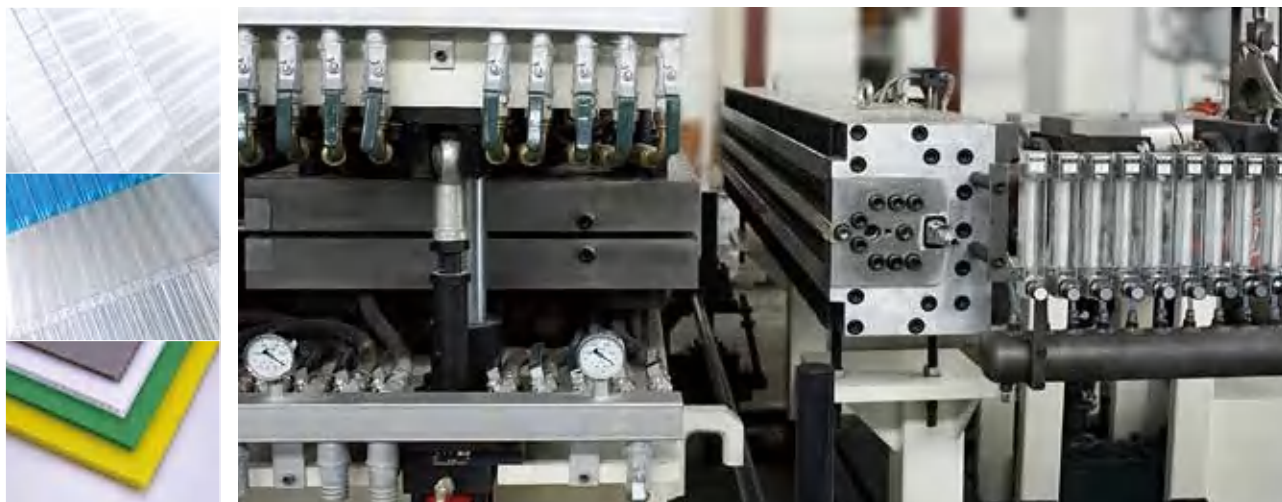


模具芯棒经专用设备工艺切割，采用精度高达0.015-0.03 μm 的精抛光工艺，料流顺畅。模头上，下模唇弹性微调设计使制品壁厚误差 $\leq 3\%$ 。全封闭内置电热管分区控制，安全美观。模具采用隔热板装置实现优化工艺温度，减小热量损失。定型模独立分区控制的均匀抽真空装置及温度控制系统，配有真空密封边装置。模具适合于生产PC厚度范围4-40mm，宽度600-1050mm规格的U型锁扣阳光板制品。

模头所生产的制品重量轻，强度高，安装简便，可弯曲性强，被广泛用于大型市政工程、建筑采光屋面、游泳池顶棚、工业屋顶及采光天棚、农业温室、厂房屋顶等公共设施。

Mould core rod adopt the special equipment cut, and the high precision polishing process. To make sure to the smoothly flowing of the materials. In the die head, the elastic fine-turning design make the tolerance of the product wall thickness $\leq 3\%$. Fully built-in zone control electric heating tube, safe and beautiful. The mould adopt the Heat shield device to Realize optimization of process temperature In order to reduce the loss of heat. The even vacuum system and the temperature control system which are separately zone controlled by the calibrator mould equip the vacuum sealing strip equipment. The mould can be used to produce U type Lock PC hollow cross-section products, thickness range from 4-40mm and width range 600-1050mm.

The PC hollow products produced by special dies are light weighted, high impact strength, easy installation, good flex characteristic, is widely used as Large municipal engineering, the roof of the building, The roof of the swimming pool, Industrial roof, the Lighting ceiling, Agricultural Greenhouses and so on communal facilities.



Sheet Die Series

片材模头系列



JW-P-K1

快速开口系列模头，上模唇推拉式微调，柔性下模唇可实现不停机在线快速调整制品厚度规格，调节范围最大达5mm，带45度节流棒调节装置，适用生产PC、PS、PP、PE、PLA等单层或多层片板。

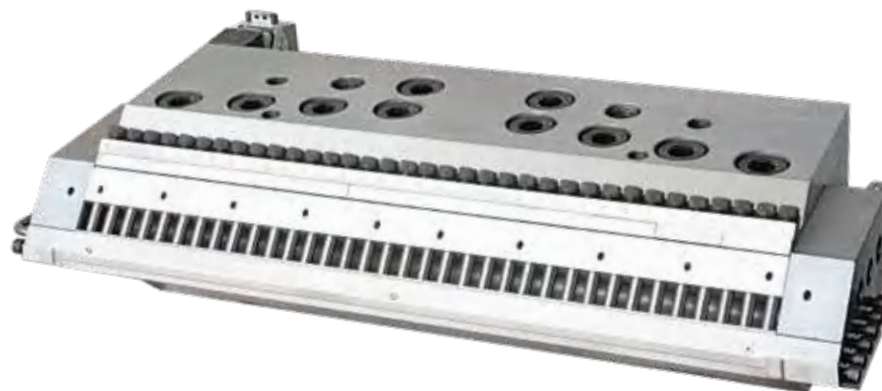
Fast opening die series, the upper die lip with fine-tuning push-pull type, the flexible lower die lip can adjusting product thickness on-line without stop, the Max adjusting range up to 5 mm, Equip with 45° blocking bar, it is suitable for produce PC, PS, PP, PE, PLA, single-layer or multi-layer plate .



JW-P-A1

标准衣架式流道设计，上模唇可微调，适用生产PET(APET、PETG) PC、PS、PP、PLA等，单层或多层片板，宽度≤2100mm，厚度0.14-2mm。

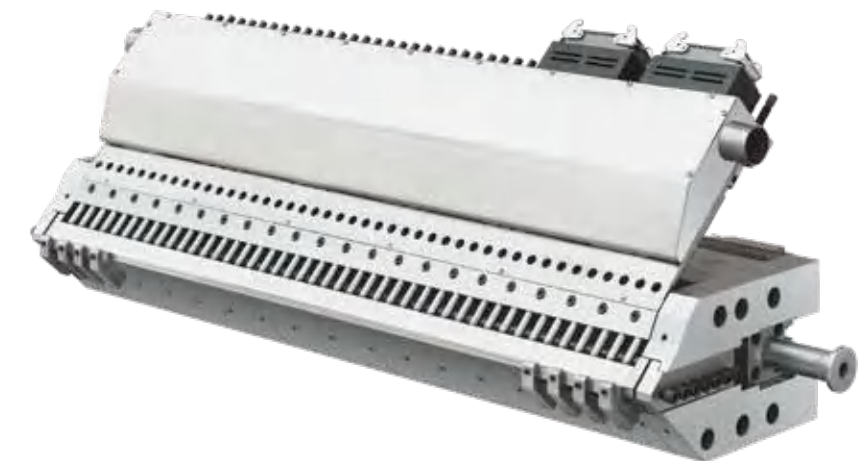
With coat-hanger channel, micro-adjustable upper die lip, the die is perfect for single-layer or multi-layer PET(APET, PETG)PC, PS, PP, PLA plate with the width ≤2100mm, and the thickness between 0.14-2mm.



JW-P-AT1

自动调节模头，上模唇含自动控制单元，分为手动调节和自动调节两部分，手动调节范围在1mm。自动调节范围在300um。适用PC、PS、PP、PE、PLA等不同宽度的单层、多层片材或薄膜。

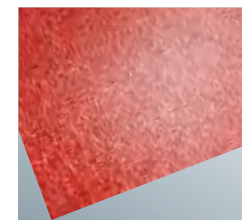
Auto-adjusting die, the upper die lip is adjusted by the auto-control system which divided into manual-control unit and auto control unit; the first can control the accuracy in 1mm and the latter 300um. Fits for PC, PS, PP, PE, PLA single-layer or multi-layer sheet or film with different width.



JW-P-D1

模内复合模头，通过多流道模内复合，可有效提高各层面的薄厚精度。上模唇可微调、下模唇固定及芯层45度节流棒调节装置，适用生产PC、PS、PP、PE、PLA等多层共挤片材。

With multi-manifold design, the die can combine the materials inside to ensure the accuracy of the film. The die adopts micro-adjustable upper die lip, fixed lower lip and 45° blocking bar, which is fit for PC, PS, PP, PE, PLA multi-layer co-extrusion sheet.



Sheet Die Series

片材模头系列



JW-P-C1

标准衣架式流道设计，上模唇可调、下模唇可换及45度节流棒装置。适用生产PVC、PS、PP、PE、PC等单层或多层片材，制品厚度0.8-12mm。

With coat-hanger channel design, adjustable upper die lip, changeable lower die lip and 45°blocking bar, the die is fit for PVC, PS, PP, PE, PC single or multi layer sheet with the thickness of 0.8-12mm.



JW-P-C2

模头采用渐变水滴形平肩式流道，配合三角形分流技术，阶梯式稳流，有效消除了挤出过程中因高压导致模口变形。上模唇为手动推出式微调弹性模唇，调整精确，平面式节流棒，能够消除物料滞留，解决因停留过长导致分解。下模唇可换，可根据不同厚度配备不同开口的模唇。适用生产PC、PS、PP、PE、PLA、PVC等单层或多层片板。

Adopting gradually water drop shape and flat shoulder type flow channel ,with triangle diversion technology, ladder style flow, effectively eliminate the extrusion process for high pressure lead to mould mouth deformation.The upper die lip is a manual push-off type fine-tuning elastic modulus lip.precisely adjustment,with a flat blocking bar can eliminate the material stranded, solve the materials decompose problem because of stay too long.The die lip can exchange, according to different thickness equipped with different open die lip. Applicable for PC, PS, PP, PE, PLA, PVC single-layer or multi-layer plate.



Plate Die Series

板材模头系列



JW-B-C1

标准衣架式流道设计，上模唇采用推拉式或推出式微调，下模唇可换，调节范围最大达5mm，适用生产PC、PMMA、GPPS、PET、等单层或多层高透明片材或板材。

Standard coat-hanger design, the upper die lip adjusting adopts the push-pull type or push-out fine-tuning type;the lower die lip can exchange, the maximum adjusting range up to 5 mm, it is suitable for the production of PC, PMMA, GPPS, PET, single-layer or multi-layer high transparent sheet or plate.



JW-B-A2

重型模头采用标准衣架式流道设计，上模唇可调、下模唇可换及45度调节阻流棒调节装置，能够满足不同厚度制品的需求。适用生产宽度在2000mm以下，厚度3-30mm的ABS、PE、PP厚板。

With special coat-hanger channel design, adjustable upper die lip, changeable lower die lip and 45°blocking bar, the die adapt to ABS, PE, PP thick plate with the width below 2000mm and thickness between 3-30mm.



Plate Die Series

板材模头系列



JW-B-A1

特殊衣架式流道设计，能最大限度上减少热敏性材料在挤出过程中的烧蚀。上唇可调、模唇可换及垂直节流棒调节装置，能满足不同厚度制品的需求。适用生产PVC自由发泡板材，制品厚度2-20mm。

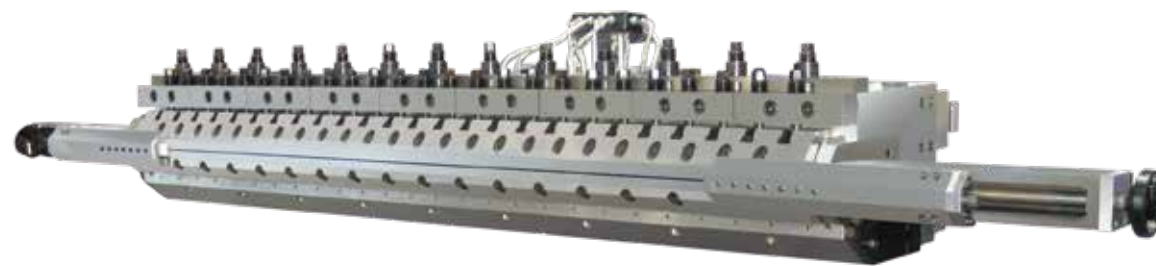
With special coat-hanger channel design, the die minimizes ablation of heatsensitive material. With the adjustable upper die lip, changeable lower die lip and perpendicular blocking bar, the die meets the thickness requirements of various products. The die is fit for PVC foaming board with the thickness between 2-20mm.



JW-B-B1

标准衣架式流道设计，上模唇可调、下模唇可换及垂直节流棒调节装置。配ST型模唇挡块，能够在线快速调节制品宽幅。适用生产ABS、PS、PP单层或多层板材，制品厚度0.8-8mm。

The die adopts a typical coat-hanger channel, and adjustable upper die lip, changeable lower lip and perpendicular blocking bar. With ST-model width-control system, the width of products can be changed without interrupting. The die is designed for ABS, PS, PP single-layer or multi-layer plate with the thickness between 0.8-8mm.



PVC Coating Die Series

PVC涂覆模头系列



JW-F-A1

PVC涂覆模采用特殊衣架式流道设计及独特的模唇结构，上模唇可调及垂直节流棒调节装置及涂层厚度可调，通过成对使用，可生产不同厚度、不同规格的专用运输带。该类产品被广泛用与矿山，仓储，运输等场合；标准规格(mm)：650、800、1000、1200、1400、1600、1800、2000。

PVC coating die adopts special channel of coat-hanger structure, adjustable upper die lip, perpendicular blocking bar, the thickness of production can be adjusted. In pairs, special-purpose conveyer belt with different thickness and size can be produced. This kind of products are widely used in mining, storage, transportation and so on; Specification(mm): 650, 800, 1000, 1200, 1400, 1600, 1800, 2000.



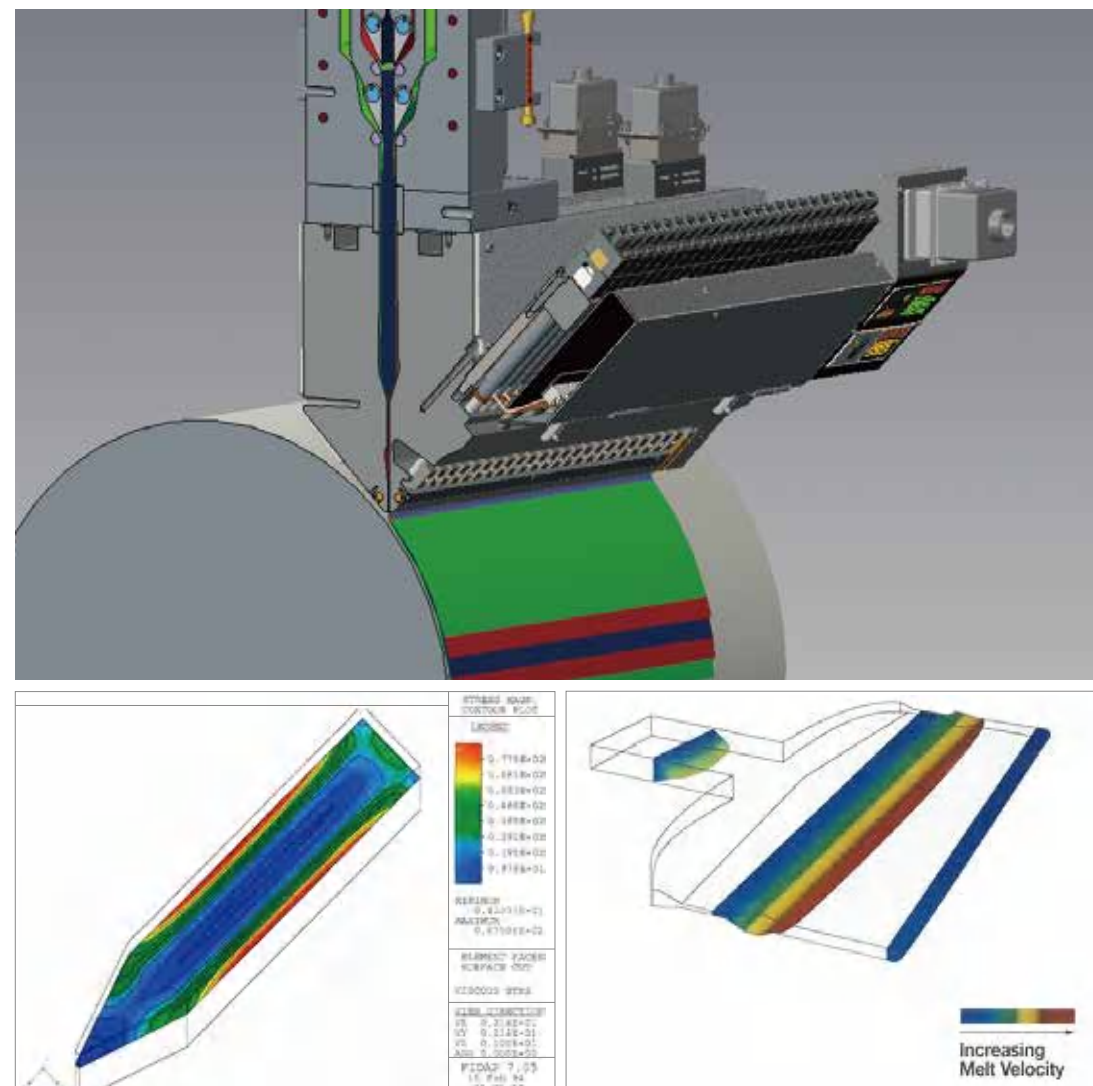
Biaxially Oriented Die

双向拉伸模头



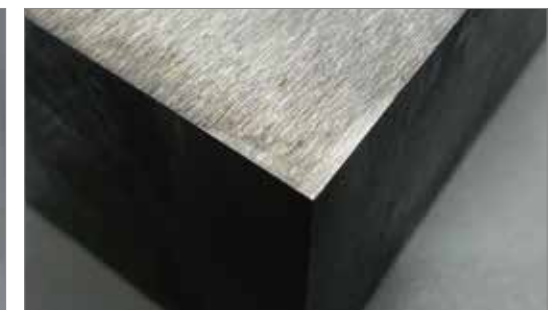
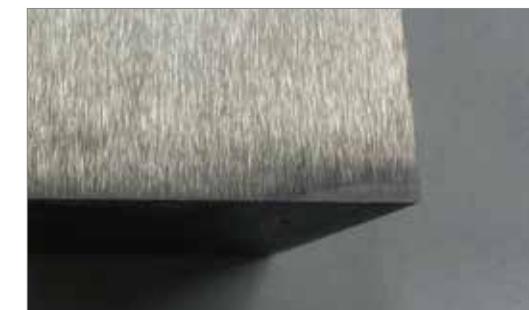
挤出模头是双向拉伸设备中的关键部件，直接决定铸片的外形和厚度均匀性。该类双向拉伸铸片模头采用衣架型流道设计，并借助专业的计算机流体分析软件进行流道模拟分析和优化，以此获取最佳的流道参数。模唇采用推拉式自动调节模唇，可通过在线测厚仪的检测到的厚度数据经过电脑程序处理后反馈给特殊的模唇热膨胀调节螺栓，实现对模唇的开口厚薄进行自动微调，快速有效的控制产品精度；此类模头可适用于：BOPP、BOPS、BOPA、BOPET、BOPI等。

铸片模头唇口的直线度，粗糙度和唇口尖角大小直接影响产品质量，经过我们的实验与论证，模唇经过局部硬化处理后可有效改善模头质量。如表面硬度高，金相组织细化，耐磨性优于传统淬火工艺等优点，且经过硬化后的模唇能够得到更好的直线度和耐磨性。



The die is crucial part of the biaxially oriented cast sheet, directly decided to cast sheet shape and thickness uniformity. This biaxially oriented casting sheet die adopt coat hanger flow channel design, and equip with professional computer fluid analysis software, Flow channel CFD analysis and optimization, to obtain the best fluid parameters. Die openings adjustment adopts the push-pull type automatic die lip adjustment, through online thickness gauge of the thickness of the detected data through computer program processing after feedback to the special die lip thermal expansion regulating bolts, for the opening of the die lip thickness automatic fine-tuning, effective control of product precision. This die applicable for: BOPP, BOPS, BOPA, BOPET, BOPI products etc.

The die lip straightness, roughness and the size of the lip sharp angle is direct impact on the quality of products. After experiments and repeated demonstration, using short-wave pulse local hardening treatment can be effective in improving the quality of the die. so that hardened surface hardness, microstructure refinement, wear resistance superior to conventional quenching process. The die lip straightness and abrasion resistance is better.



Waterproof Sheet Coil Die Series

防水卷材模头系列

8米防水卷材模头

PVC、EVA、PE新型防水材料具有较强的抗渗透性，有良好的防水性能，较高的耐高温、低温性能，有较好的强度及延伸率，并有优异的耐老化性特点。广泛应用于工业与民用建筑的屋面防水、建筑物地下防水、隧道防水、人工湖防水等。

特点：

- 计算机辅助歧管设计使物料分布均匀，使宽幅制品得以实现。
- 加长的模唇提高了成品取向的一致性，降低了模头膨胀，对调节的反应灵敏度大大提高。
- 在模腔中心处歧管与口模结合处所形成的曲线相贯线能够改善物料的侧向流动和分配。
- 上模唇可微调，下模唇可更换可生产不同厚度制品(1-4mm最大可做到10mm)。
- 带有节流棒调节功能，能适用不同原料、不同厚度制品的挤出。

8 meters waterproof sheet coil die

PVC, EVA, PE new type of waterproof material have high performance of anti-permeability, water-proofness, thermo-stability and cryogenic property, high strength and elongation and have the characteristic of aging resistance, are widely used for waterproof in building roof of industry and civil construction, underground, tunnel, artificial lake, etc.

Characteristics:

- CAD of manifold making the material distributing uniformly and realize the wide products.
- The lengthening die lip improved the uniform orientation, reduced the expansion of die, highly improved the reaction of regulating.
- Line of intersection for curve formed on the joint between the center manifold of die chamber and die lip can improve the flow of side directions and distributing.
- Micro-adjustable upper die lip and changeable lower die lip for producing different thickness (1-4mm, the maximum is 10mm) .
- With the function of restrictor bar adjusting and be suitable for the extrusion of different materials and thickness.



Narrow Gap Coating Die Series

狭缝涂覆模头系列



狭缝涂布模头可以生产出非常薄的涂层以及透明的光学涂层，同时可使涂层量保持在非常精确公差范围内，与将涂布液擦拭到基材上的涂布系统不同，我们的狭缝涂布模头属于模唇缝隙相对较大（可达到0.0762mm）的涂布模头，由此模唇缝隙抽吸出的液体可形成最薄至1 μ m的涂层。狭缝涂布模头可在涂层厚度只有0.002mm或者是2 μ m的情况下，将整个宽度上的涂层量控制在5%左右的公差变化范围内。我们生产的狭缝涂布模头模唇是固定的，因此可以利用可换的控隙片来改变涂层的厚度和宽度。涂布量从不足1 μ m到254 μ m的涂层厚度。该类模头可加工各种类型的胶粘剂（包括特殊的透明胶粘剂）、电池、陶瓷电容器、装饰表面、电子显示介质、过滤膜、地板、燃料电池、磁性泥浆、医疗产品、光阻材料、压敏胶带、太阳能电池、超导体、撕带和窗用薄膜等。

Narrow gap coating die head can produce a very thin coating and transparent optical coatings, also can make the coating is kept in very exact tolerances range, Unlike the wipe liquid coating on the based material, our narrow gap coating die head system belongs to die lip gap is opposite bigger (0.0762 mm) coating die head, so that the thinnest coating will reach to 1 μ m through out the die lip. On the case of the condition thickness only in 0.002mm or 2 μ m, the Narrow gap coating die head system can control the entire width coating capacity tolerance range around 5%. We design the die lip is fixed, so we can use the control feeler blade to control the coating thickness and width. Coating thickness from less than 1 μ m to 254 μ m. The die head can processing all kinds of adhesive (including special transparent adhesives), battery, ceramic capacitor, decorative surface, electronic display medium, the filtration membrane, floor, fuel cells, magnetic mud, medical products, light resistance materials, pressure sensitive adhesive tape, solar battery, superconductor, tore belt and the window with film, etc.



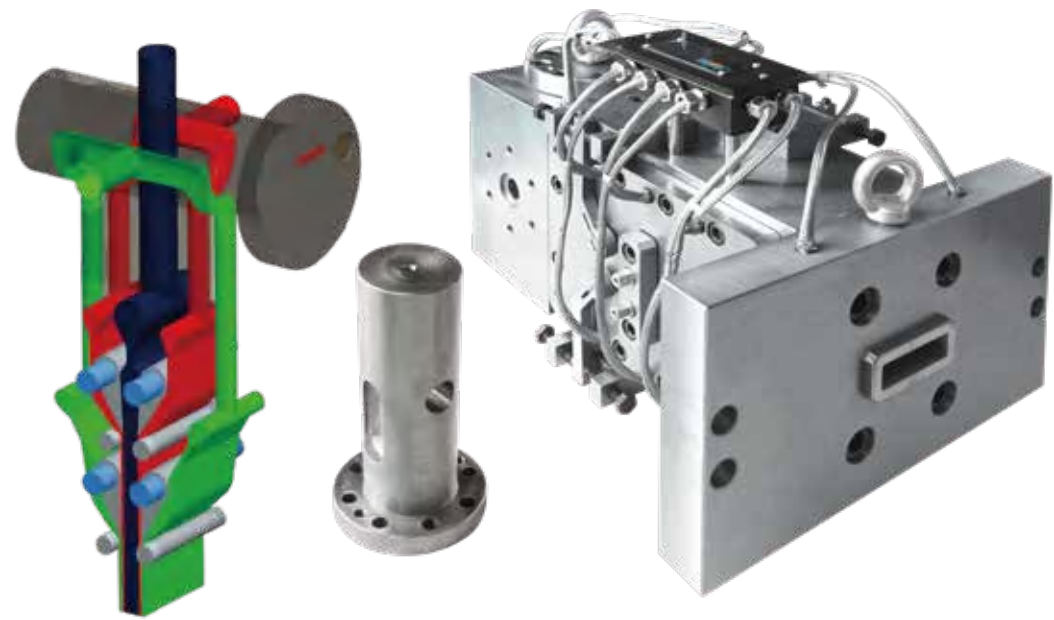
Multi-layer Co-extrusion Distributor

多层共挤分配器



复合共挤分配器 适合各种聚合物料，配合挤出平模使用，可按照客户的分层要求，均匀地复合挤出成为薄膜、片材、板材制品。根据适用的塑胶原料和使用情况，有芯棒式、堵块式、摆叶式等形式可供选择，通过更换进料处的分层排序轴改变复合层的排列次序。可以处理的复合层数从2层到60层甚至更多。

Multi-layer co-extrusion feedblocks are suitable for various polymer plastic materials. Bases on the customs' different requirements, a combination of T-die and co-extrusion feedblock provides the most competitive edge for film and sheet production. There are differnt modles of configuration for different features of plastic materials, layers which the feedblock can manage can reach 2 to 60 or even more.



分配器结构图 Illustration of structure of distributor

原料排列方式 Materials feeding form					
流道模式 Running model					
应用实例 Materials feeding form	PS+HIPS EVA+PE PMMA+ABS ABS+HIPS APET+PETG	PS+HIPS+PS ABS+HIPS+ABS HIPS+回料PS+HIPS HIPS+PVC+HIPS PETG+APET+PETG	PMMA+HIPS+ABS PC+ABS+UPVC HIPS+回料PS+PS	PEPS+HIPS+PEPS+PS HIPS+回料PS+HIPS+PS	ABS+HIPS+回料PS +HIPS+ABS PMMA+ABS.PMMA +ABS+ABS.PMMA+PMMA

Screen Changer System

换网系统



生产的过滤换网系统广泛应用与各类塑料制品挤出、塑胶制粒等领域，完美的设计和精心的制作让产品的性能值得信赖；多种可供选择的结构形式和规格型号，总有一款适合您的过滤要求。

Hydraulic screen changer system widespread use in all kinds of plastic products, plastic granulation etc, the perfect design and careful production let the product's performance is worth trust; A wide selection of structural form and specifications, always have a suitable for your requirements.

手动换网器系列

- 挤出机螺杆可穿过换网器直接拔出，方便拆卸清理。
- 采用先进的压力密封技术，通过聚合物在网前的压力驱动密封元件，达到最佳密封效果，且换网更迅速。
- 模块化组合，适合不同标准挤出机，且清理方便。
- 低成本投资，适合小型挤出系统使用
- 最低的停留时间。
- 最小的安装空间，
- 适合不同的挤出产业。

Manual screen changer series:

- Extruder screw can draw from the screen changer directly, it is convenient to remove and clean
- Adopts advanced pressure seal technology, through the pressure of polymers to drive seal components, to achieve the best sealing effect and change screen more quickly
- modular combinations, suitable for different standard extrusion machine, and convenient to clean
- Low cost investment, suitable for small extrusion system.
- The minimum stay time.
- The smallest installation space,
- Suitable for different extrusion industry.



技术参数 Technical parameter

型号 Model	产量(Kg/h) Output	滤网规格 (mm) Filter size	过滤面积(mm²) Filtration area	最高承压(Mpa) Withstanding pressure	温控分区 Heating zone	加热功率 (KW) Heating power
JW-MT-50	50~100	Φ55	1960	20	2	3.3
JW-MT-70	80~150	Φ75	3850	20	2	3.3
JW-MT-100	150~350	Φ105	7850	15	2	6
JW-MT-120	250~400	Φ125	11300	15	2	8

Hydraulic Screen Changer System

液压换网系统



单柱液压换网器系列:

- 无机械密封结构，保证在高压、高温状态下不渗料。有效降低换网阻力，减小液压系统的工作压力。
- 一体式结构，无承载缝隙，强化承载压力，使系统承载压力更高。
- 优质合金钢经氮化处理，大幅延长产品使用周期。
- 整体式工程油缸，使用寿命更长久。
- 经过流变优化后的蜂窝板，有效降低了挤出过程中流体剪切。
- 采用内加热装置，安全节能；全封闭走线，美观大方。

Single column hydraulic screen changer series:

- No mechanical seal structure, which can guarantee the high pressure and high temperature condition not seep materials. Effectively reduce the change screen resistance, reduce hydraulic system pressure of work.
- One-piece structure, without carrying aperture, strengthen bearing pressure, make the system load pressure is higher.
- Using High quality alloy steel,after nitriding process to extended product life span greatly.
- Integral engineering oil cylinder, a long use life.
- After optimization of rheological through cellular plate, to reduce the extrusion process fluid shear.
- Using inner heating device, for safe and energy-saving. Fully enclosed wires, for the elegant appearance.



技术参数 Technical parameter

型号 Model	产量(Kg/h) Output	滤网规格 (mm) Filter size	过滤面积(mm²) Filtration area	最高承压(Mpa) Withstanding pressure	温控分区 Heating zone	加热功率 (KW) Heating power
JW-DZ-50	50~100	Φ55	1960	40	2	2.4
JW-DZ-70	80~150	Φ75	3850	30	2	2.4
JW-DZ-100	150~350	Φ105	7850	30	2	3.4
JW-DZ-120	250~400	Φ125	11300	25	2	6.4
JW-DZ-150	350~600	Φ155	17670	25	2	8
JW-DZ-180	450~1000	Φ185	25440	25	2	10



双柱双工位液压换网器系列:

- 无机械密封结构，保证在高压、高温状态下不渗料；有效降低换网阻力，减小液压系统的工作压力。
- 优质合金钢经氮化处理，大幅延长产品使用周期。
- 整体式工程油缸，使用寿命更长久。
- 交替式工作模式，能保证在换网过程中的料流连续、稳定以及工艺参数的可重复性。
- 经过流变优化后的蜂窝板，有效降低了挤出过程中流体剪切。
- 配合行程位置传感器，换网更精确，更可控。

Double column with double working position hydraulic screen changer series:

- No mechanical seal structure, which can guarantee the high pressure and high temperature condition not seep material. Effectively reduce the change screen resistance, reduce hydraulic system work pressure .
- Using High quality alloy steel, after nitriding process to extended product life span greatly.
- Integral engineering oil cylinder, a long use life.
- Alternating work mode, can guarantee the material flow continuous, stability and the process parameters of repeatability, when change the screen
- After optimization of rheological through cellular plate, to reduce the extrusion process fluid shear.
- Cooperate with stroke position sensor, change the screen more accurate, more controllable.



技术参数 Technical parameter

型号 Model	产量(Kg/h) Output	滤网规格 (mm) Filter size	过滤面积(mm²) Filtration area	最高承压(Mpa) Withstanding pressure	温控分区 Heating zone	加热功率 (KW) Heating power
JW-SZ-50	50~150	Φ55	1960X2	40	2	7.5
JW-SZ-70	80~150	Φ75	3850X2	40	2	7.5
JW-SZ-100	150~380	Φ105	7850X2	35	2	9
JW-SZ-120	350~700	Φ125	11300X2	30	2	13.5
JW-SZ-150	400~1000	Φ155	17670X2	28	2	15
JW-SZ-180	700~1500	Φ185	25440X2	25	2	18

Hydraulic Screen Changer System

液压换网系统

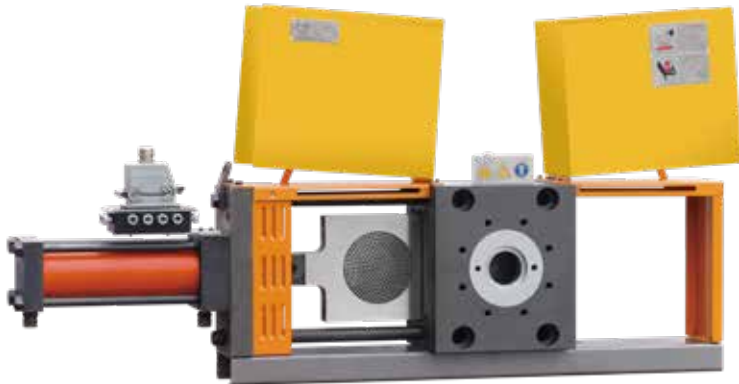


单板双工位液压换网器:

- 挤出机螺杆可穿过换网器直接拔出，方便拆卸清理，
- 采用先进的压力密封技术，通过聚合物在网前的压力驱动密封元件，达到最佳密封效果，且换网更迅速。
- 穿透式螺栓与挤出机连接。
- 模块化组合，适合不同标准挤出机，且清理方便。
- 采用内加热装置，安全节能；全封闭走线，美观大方。

Single-panel with double working position screen changer:

- Extruder screw can draw from the screen changer directly, it is convenient to remove and clean.
- Adopts advanced pressure adaptive sealing technology, through the pressure of polymers to drive seal components, to achieve the best sealing effect and change screen more quickly.
- Penetrating type bolts connect the extruder.
- Modular combinations, suitable for different standard extrusion machine, and convenient to clean.
- Adopts the inner heating device, for safe and energy-saving. Fully enclosed wires, for elegant appearance.



技术参数 Technical parameter

型号 Model	产量(Kg/h) Output	滤网规格 (mm) Filter size	过滤面积(mm²) Filtration area	最高承压(Mpa) Withstanding pressure	温控分区 Heating zone	加热功率 (KW) Heating power
JW-DB-50	50~100	Φ55	1960	30	2	5
JW-DB-70	80~150	Φ75	3850	30	2	6
JW-DB-100	150~350	Φ105	7850	30	3	6
JW-DB-120	250~400	Φ125	11300	30	3	6.4
JW-DB-150	350~600	Φ155	17670	25	3	7
JW-DB-180	450~1000	Φ185	25440	25	3	8
JW-DB-200	550~1300	Φ205	31415	20	3	12
JW-DB-250	850~1700	Φ255	49087	20	3	13
JW-DB-300	1100~2000	Φ305	70685	20	3	14



双板不停机液压换网器系列:

- 采用先进的压力密封技术，通过聚合物在网前的压力驱动密封元件，达到最佳密封效果，且换网更迅速。
- 优质合金钢经氮化处理，大幅延长产品使用周期。
- 交替式工作模式，能保证在换网过程中的料流连续、稳定以及工艺参数的可重复性。
- 经过流变优化后的蜂窝板，有效降低了挤出过程中流体剪切。
- 采用内加热装置，安全节能。全封闭走线，美观大方。
- 模块化组合模式，适合不同标准挤出机，且清理方便。

Double-panel hydraulic non-stop screen changer series:

- Adopts advanced pressure seal technology, through the pressure of polymers to drive seal components, to achieve the best sealing effect and change screen more quickly.
- Using high grade alloy steel, after nitriding process to extended product life span greatly.
- Alternating work mode, can guarantee the material flow continuous, stability and the process parameters of repeatability,when change the screen.
- After optimization of rheological through cellular plate, to reduce the extrusion process fluid shear.
- Using inner heating device, for the safe and energy-saving. Fully enclosed wires, for the elegant appearance.
- Modular combination patterns, suitable for different standard extrusion machine, and convenient to clean.



技术参数 Technical parameter

型号 Model	产量(Kg/h) Output	滤网规格 (mm) Filter size	过滤面积(mm²) Filtration area	最高承压(Mpa) Withstanding pressure	温控分区 Heating zone	加热功率 (KW) Heating power
JW-TB-50	50~100	Φ55	1960x2	30	4	18
JW-TB-70	80~150	Φ75	3850x2	30	4	18
JW-TB-100	150~380	Φ105	7850x2	30	6	18
JW-TB-120	350~700	Φ125	11300x2	30	6	20.4
JW-TB-150	400~1000	Φ155	17670x2	25	6	22
JW-TB-180	700~1300	Φ185	25440x2	25	6	27.2
JW-TB-200	850~1700	Φ205	31415x2	20	6	41.6
JW-TB-250	1100~2200	Φ255	49087x2	20	6	52
JW-TB-300	1500~2600	Φ305	70685x2	20	6	72

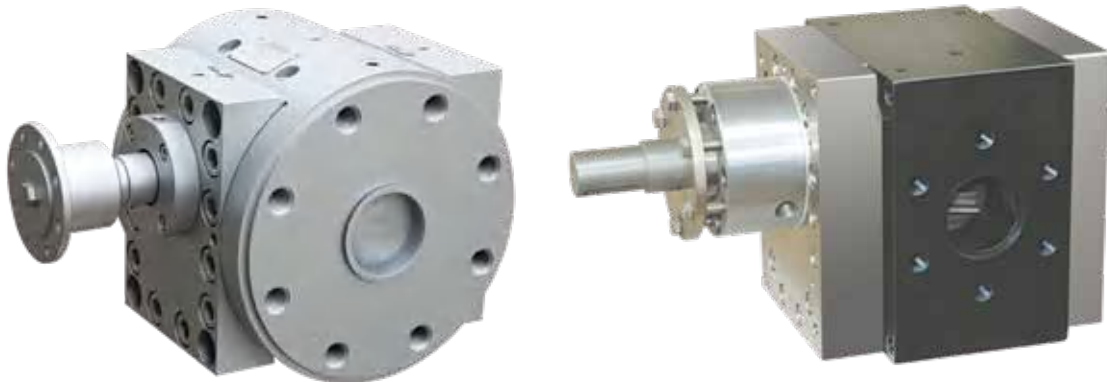
Plastic Melt Measuring Gear Pump

熔体计量泵



在挤出生产线上安装一台齿轮泵，通过泵前准确的测压，通过PLC调节挤出机速度，保持压力稳定、有序提供料流来优化供料过程。广泛用于如PC、PMMA、ABS、PET、PVB、PS、PP、PE等高低粘度物料的计量和增压。壳体采用优质合金钢制造，齿轮用淬硬的铬钢或其他优质金属材料制造，具有高效、防漏等优点。

Equipping a gear pump in front of the extruder, checking pressure before the pump and controlling the speed of extrusion, which can minimizing pulsation and irregular material feeding and ensures the polymer is smoothly extruded and continuously delivered to the die head. The system can be widely used to measuring and adding pressure for PC, PMMA, ABS, PET, PVB, PS, PP, PE. The shell of the pump adopts high-quality alloy-steel and the gear uses quenched chrome steel or other high-grade metallic materials which ensures high efficiency and leakage-proof.



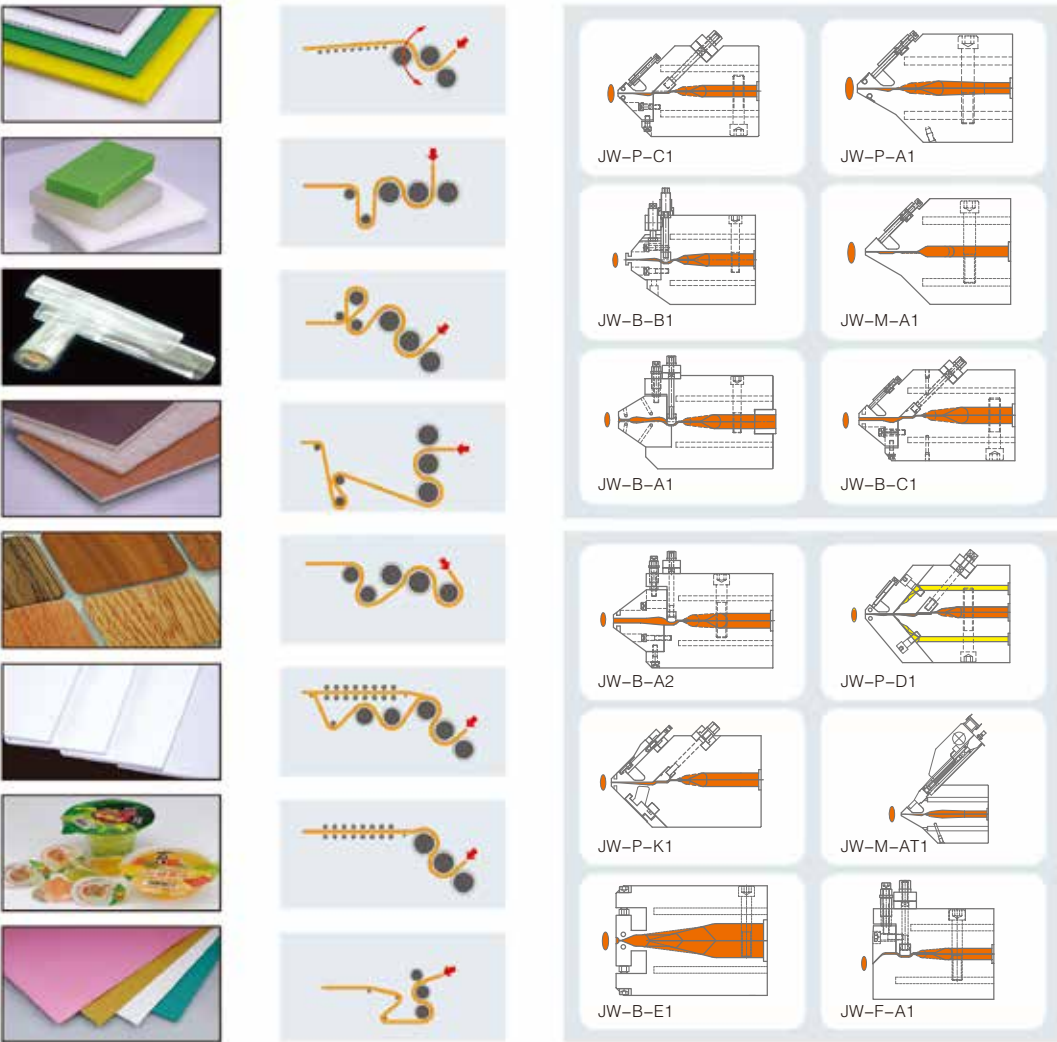
技术参数 Technical parameter

型号 Model	排量(CC/r) Volume	转速(rpm) Round speed	产量(Kg/h) Output	传动功率(kw) Driving power
JW-30	30	20-100	30-150	3
JW-50	50	20-100	50-280	5.5
JW-100	100	20-95	110-500	7.5
JW-150	150	20-85	200-900	11
JW-250	250	20-70	300-1200	18.5
JW-400	400	20-70	400-1600	22



各种单层、多层共挤模头，适用PC、PMMA、APET、PETG、ABS、PS、HIPS、PVC、PP、PE、PU、PVDC等原料，选配不同类型的三辊压光机，可生产各种透明板、彩板、发泡板，中空阳光板、洁具板、铝塑复合板、防水卷材、专用地板革，以及各种食品、服装、医药等包装材料、文具片材、光膜、压纹膜、涂膜等。

We produce not only a variety of single-layer/multi-layer co-extrusion dies suitable for materials including PC, PMMA, AP-ET, PETG, ABS, PS, HIPS, PVC, PP, PE, PU, EVA, PVDC, but also other products such as high transparency panels, color panels, foaming sheet, hollow sunshine boards, sanitary ware sheet, aluminum-plastic composite panel, water-proof coils, special floor leather and various materials for food, clothes and medicine package, sheet materials for stationery, light film, graining film, coating film and so on.



企业风采：品质管理 技术研发 国际交流 客户服务 员工培训

Quality Control Technology Research International Communication Customer Service Staff Training

