



塑料清洗造粒生产线

# PLASTIC WASHING GRANULATING SYSTEM

TURN YOUR WASTE INTO PROFIT

**PULIER 普利尔** | 

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**PULIER 普利尔** | 

**ABOUT US**

Chengdu PURUI polymer Engineering Co., Ltd ,established on 2006 and Zhangjiagang city PULIER machinery Co., Ltd., established on 2015 works as a joint group company. We have been in the plastic recycling field for more than 17 years with abundant experience and technology.

We have been focused on the sustainable development. During the years of efforts, our company has developed plastic PET and PE bottles washing line, PP PE plastic agriculture films, banana films washing line, PP woven bags washing line, plastic pelletizing machine and plastic recycling extruder for loose materials and rigid plastics etc.

Based on your recycling plastics, we will offer you the best solution to recycle the plastics with high efficiency and low consumption. The machine quality gets guaranteed. Regarding after-sale service, we will offer the quick response and guidance for our customers to ensure the machine running on well.

Thanks for your trust and supports to us!

普利尔有限公司成立于2015年（原名为普瑞塑料再生设备有限公司，2020年更名为普利尔机械有限公司），公司成立伊始就着力于研究、开发塑料造粒、清洗设备。凭借着30年的从业经验以及不懈的努力和追求；从工艺设计到清洗、挤出系统的解决方案都已具备了丰富的经验和日臻完善的专业技术。

PULIER最大限度的承诺，我们向您提供质量可靠、操作简单、价格合理的设备，完善的工艺方案，及时的售后服务。实至名归地成为您最可依赖的合作伙伴。

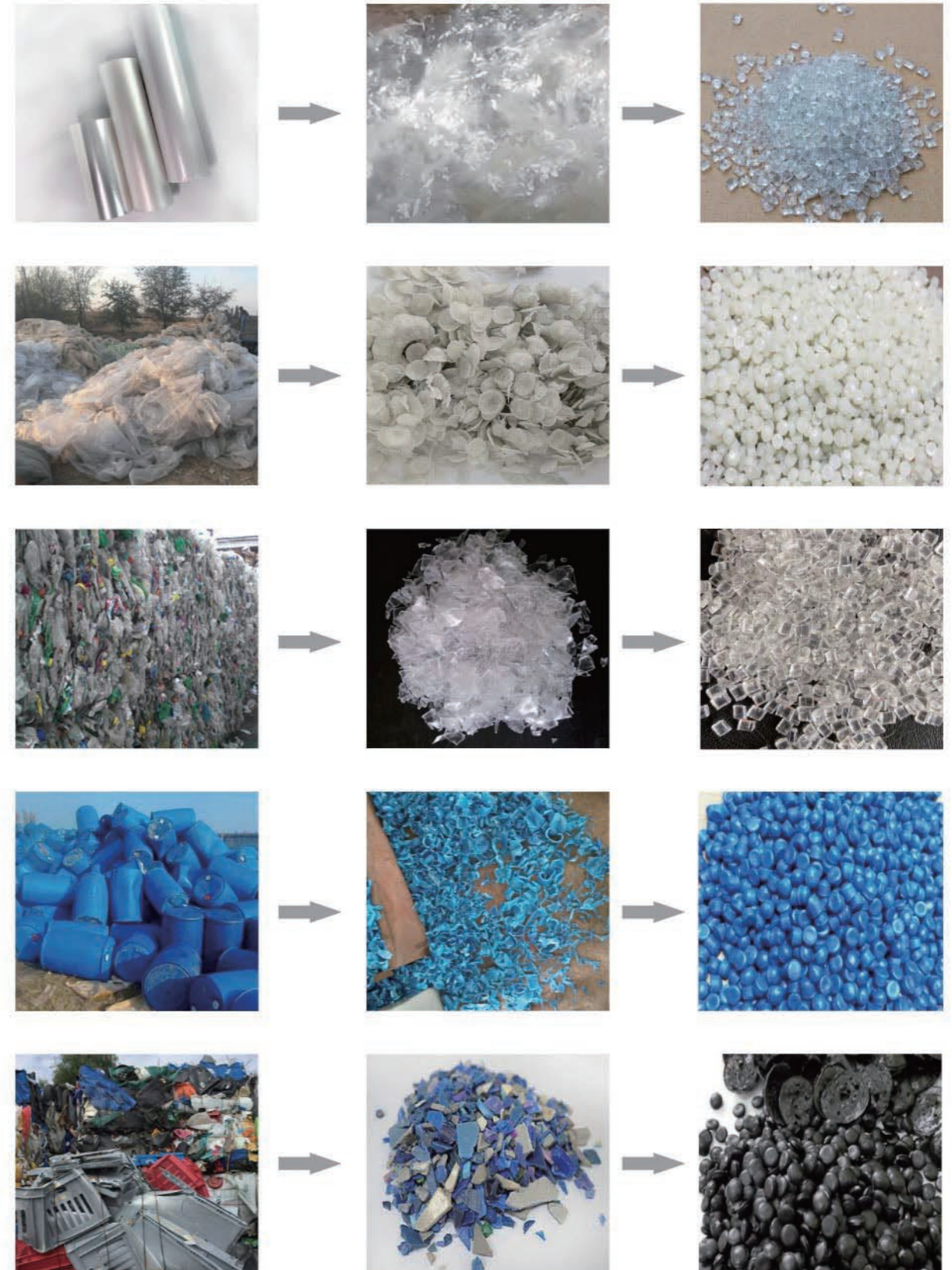
客户是我们最尊敬的主顾，您的要求在这里将得到全方位的尊重。

**持续创新，合理的价格和一流的质量**

**CONTINUOUS INNOVATION,  
HIGHEST ECONOMICS AND BEST QUALITY**



**OUR MACHINE CAN PROCESS:**



# HIGH EFFICIENT PP PE FILM PELLETIZING MACHINE

## ML系列塑料PP PE 薄膜造粒机高效节能

### To recycle:

LLDPE, HDPE, PO, CPP, BOPP, PP,  
and the BOPA films and fibers  
PET films trim edges and fibers  
Lithium-ion battery separator

### 回收:

LLDPE, HDPE, PO, OPP, BOPP, PP 薄膜, 边角料, 纤维  
PET薄膜和纤维  
锂电池隔膜



### ML series single stage model ML系列单螺杆造粒机型号:

Model	型号	ML85	ML100	ML130	ML160	ML180
Rawmaterial	原料	LLDPE/LDPE/HDPE/PO/BOPP/PP/BOPA/PET films and fibers				
Capacity (kg/h)	产量	180-250	300-400	500-600	700-800	800-1000
Main motor(kW)	主电机功率	55	90-110	132	185	250-315



## ML TWO STAGES PELLETIZING MACHINE FOR WASHED AND LAMINATED FILMS

ML 双阶回收清洗后的薄膜和复合膜



### To recycle:

PP PE PET PA laminated films and printed films  
Washed PP PE films and bags  
Washed PP woven bags

### 回收:

PP PE PET PA 复合膜和印刷膜  
清洗后的PP PE 薄膜和袋子  
清洗的 PP 编织袋

### Feature:

According to the raw materials prosperity we make the new design on the screw and barrel, degassing system, filtering system, and pelletizing system.

### 特点:

根据物料的特性我们设计新的螺杆和筒体, 排气系统, 过滤系统和造粒系统。

### ML series two stages model ML 系列双阶:

Model	型号	ML85/90	ML100/120	ML130/140	ML160/180	ML180/200
Rawmaterial	原料	LLDPE/LDPE/HDPE/PO/BOPP/PP/BOPA/PET films and fibers with impurity				
Capacity (kg/h)	产量	180-250	300-400	500-600	700-800	800-1000
Main power(kW)	主电机功率	55/18.5	90-110/30	132/45	185/55	250-315/75

**PLASTIC PP PE SQUEEZED  
FILM PELLETIZING MACHINE**  
PP PE 塑料挤干料造粒机



**SJ series single stage pelletizing machine SJ 系列单螺杆造粒机:**

Model	型号	SJ65	SJ90	SJ100	SJ130	SJ150	SJ160	SJ180
Rawmaterial	原料	Squeezed PP,PE films, HDPE bottle flakes, rigid ABS, PS, PC						
Capacity (kg/h)	产量	150-200	200-250	250-350	500	500-600	700-800	800-1000
Main motor(kW)	主电机功率	30	55	90	132	160	185-200	250-315



**PLASTIC SQUEEZED FILM, RIGID PLASTIC  
PP, PE, ABS, PC PELLETIZING MACHINE**  
塑料挤干料, 硬料PP, PE, ABS, PC造粒机



**To recycle:**

Squeezed PP and PE films  
HDPE bottle and drum flakes  
Rigid ABS, PC, PP flakes

**回收:**

薄膜挤干料  
HDPE瓶和桶回料片  
硬料ABS, PC, PP

**Feature:**

According to the raw materials prosperity we make the new design on the screw and barrel, degassing system, filtering system, and pelletizing system.

**特点:**

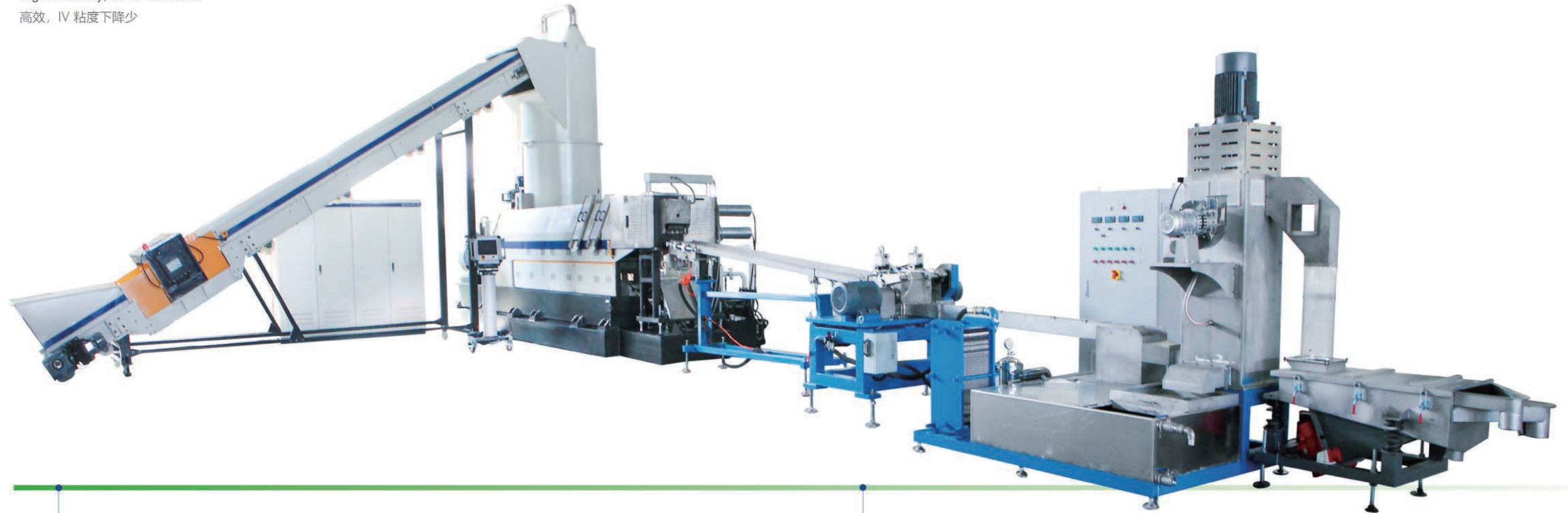
根据物料的特性我们设计新的螺杆和筒体, 排气系统, 过滤系统和造粒系统。

**SJ series two stages pelletizing machine SJ系列双阶造粒机:**

Model	型号	SJ100/100	SJ130/140	SJ150/160	SJ160/180	SJ180/200
Rawmaterial	原料	Squeezed PP, PE films, HDPE bottle flakes, rigid ABS, PS, PC				
Capacity (kg/h)	产量	250-350	500	500-600	700-800	800-1000
Main motor(kW)	主电机功率	90/37	132/45	160/55	185-200/55	250-315/75

**PET PELLETIZING MACHINE HIGH EFFICIENCY,  
LOW VISCOSITY INDEX DECREASE**  
PET 造粒机，高效，粘度下降少

High efficiency, low IV decrease.  
高效，IV 粘度下降少



**Features:**

Special design cutter compactor with double layers discs to remove moisture.  
High efficient degassing system.  
Piston type hydraulic screen changer without leak and stop

**特点:**

特殊设计的切割压实机，双层设计，可去除部分水分。  
高效排气系统。  
柱塞式液压换网器无泄漏，无停机。

**CT series single screw pelletizing machine:**

Model	型号	CT110	CT120	CT120	CT130	CT150	CT160
Rawmaterial	原料	PET flakes					
Capacity (kg/h)	产量	300-400	500-600	600-800	1000	1000-1500	1500-2000

# HIGH TORQUE COROTATING TWIN SCREW EXTRUDER TSSK系列同向双螺杆挤出机



Parallel corotating twin screw extruders have excellent mixing performance, good self-cleaning performance and flexible modular configuration characteristics which make them suitable for processing different types of material.

同向平行双螺杆挤出机具有良好的混合性能, 良好的自洁性能, 灵活的模块化组合的特性, 能够适应众多物料体系的不同类型加工。

### 1. Filling modification

CaCO<sub>3</sub>  
Talcum powder  
BaSO<sub>4</sub>  
TiO<sub>2</sub>  
Ceramic powder  
Wood flour/plant fiber  
Other inorganic filler

### 2. Reinforce Modification

Short glass fiber  
Long glass fiber  
Carbon fiber  
Other whiske

### 3. Preparation of master batch

Carbon black master-batch  
Color master-batch  
Flame-retardant master-batch  
Degradation master-batch  
Degradation master-Batch  
Other special functions master-batch

### 1. 填充改性

碳酸钙  
滑石粉  
硫酸钡  
钛白粉  
陶瓷粉  
木粉/植物纤维  
其他无机填料

### 2. 增强改性

短玻璃纤维  
长玻璃纤维  
碳纤维  
其他晶须

### 3. 母料制备

炭黑母料  
色母料  
阻燃母料  
降解母料  
其他特种功能母料

### 4. Blending modification

Thermoplastic material/Elastomer  
Polymer alloys

### 5. PET flakes recycling

PET flakes will be mixed and dried with the double disc, with the help of vacuum degassing system during extrusion make sure the IV drops little, IV,0.03. Thanks to the underwater strand pelletizing system and PLC control, it can be automatically control.

### 5. PET 瓶片回收

瓶片经过双刀盘混合, 干燥, 挤出过程中的真空系统, 确保年度下降很小。IV下降在0.03以内, 配合水中拉条切粒, PLC控制, 是实现生产自动化。

### 4. 共混改性

热塑性材料/弹性体  
高分子合金

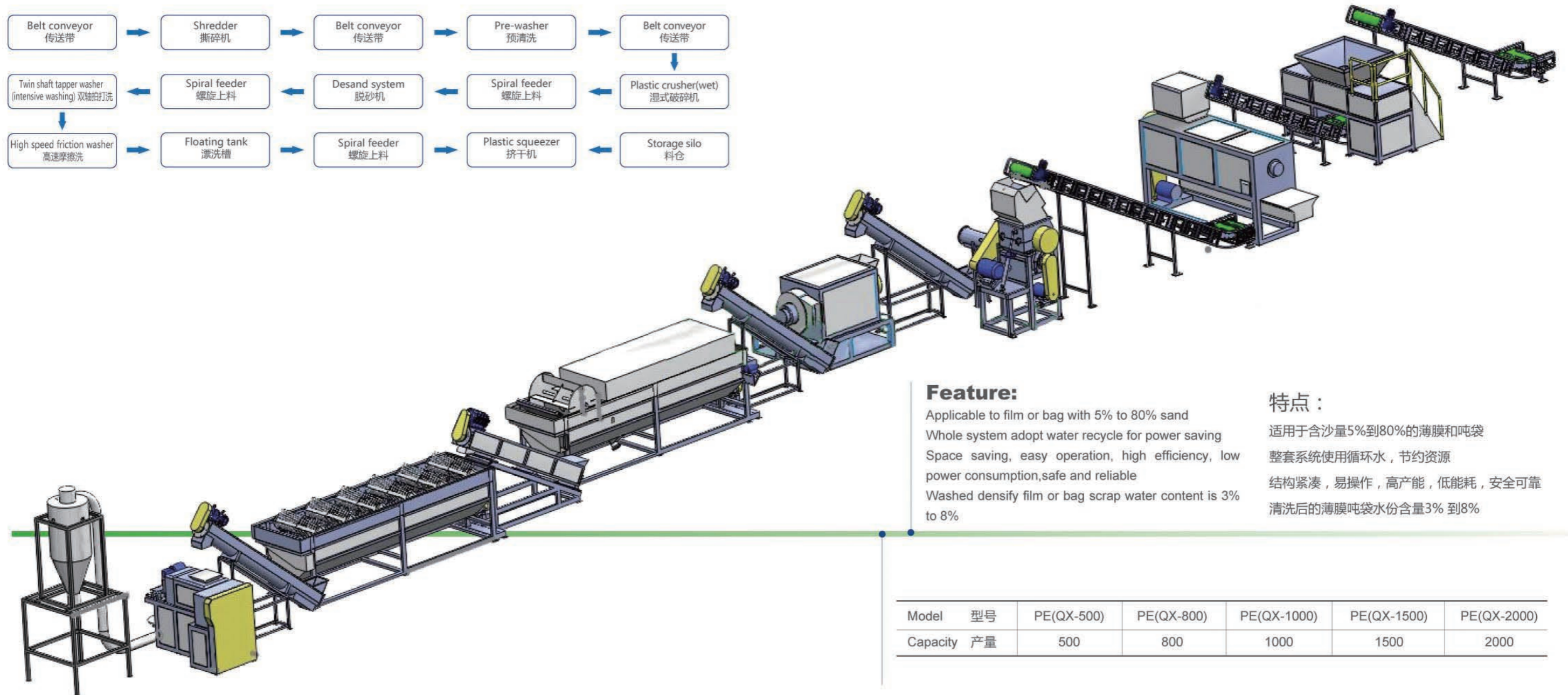
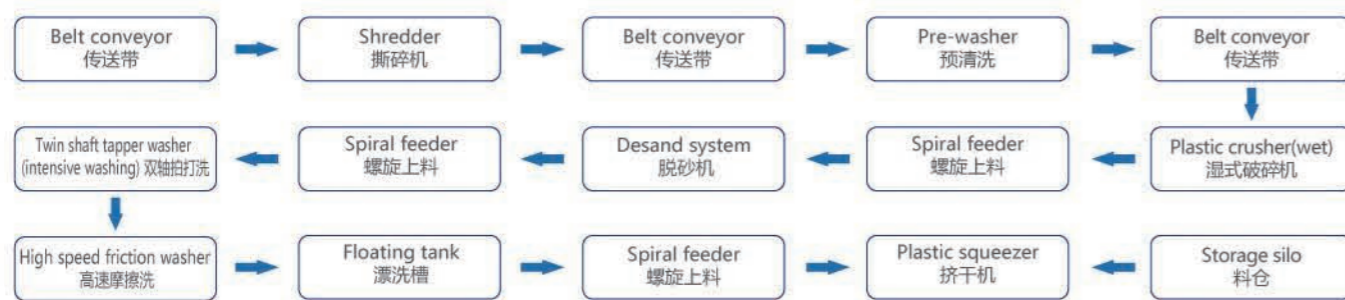
### Technical parameter of TSSK series co-rotating twin screw extruder TSSK系列同向双螺杆挤出机规格及参数

Model	型号	TSSK20	TSSK30	TSSK35	TSSK50	TSSK65	TSSK75	TSSK95	TSSK120
Screw diameter(mm)	螺杆直径	22	30	35.6	50.5	62.4	71	93	116
L/D	长径比	32-64	32-64	32-64	32-64	32-64	32-64	32-64	32-56
Screw rotatory speed(rpm)	螺杆转速	400-600	400-600	400-600	500-600	500-600	500-600	500-600	400-500
Main motor power(kW)	主电机功率	3-4	7.5-18.5	11-30	45-90	75-160	110-250	250-550	315-750
Screw torqueT(N.m)	螺杆扭矩	30	85-140	125-225	405-680	680-1200	995-1190	2260-4150	3570-6800
Torque degree T/A3	扭矩等级	4.8	4.8-8	4.6-8.3	5.1-8.5	4.8-8.5	4.6-8.7	4.7-8.7	4.4-8.4
Capacity(kg)	产量	2-15	5-75	10-120	120-400	200-850	300-1250	750-2750	950-4500



# PP PE FILM CRUSHING WASHING AND RECYCLING SYSTEM

## PP PE薄膜破碎清洗线



### Feature:

Applicable to film or bag with 5% to 80% sand  
 Whole system adopt water recycle for power saving  
 Space saving, easy operation, high efficiency, low power consumption, safe and reliable  
 Washed density film or bag scrap water content is 3% to 8%

### 特点:

适用于含沙量5%到80%的薄膜和吨袋  
 整套系统使用循环水, 节约资源  
 结构紧凑, 易操作, 高产能, 低能耗, 安全可靠  
 清洗后的薄膜吨袋水份含量3% 到8%

Model 型号	PE(QX-500)	PE(QX-800)	PE(QX-1000)	PE(QX-1500)	PE(QX-2000)
Capacity 产量	500	800	1000	1500	2000

## PRE-SHREDDER

### 预撕碎机

To do bale open  
To reduce the washing burden with rough shredding film or bag into big scrap  
To protect crusher cutters from sand bearing  
The shredding system adopts wear-resistance design for long service life

可以拆包  
缓解下游清洗压力，将物料粗撕碎成大块碎片  
保护破碎机刀免磨损  
撕碎机系统采用耐磨设计，使用寿命长



## PRE-WASHER 预漂洗机

To do primary washing with removing sand. This design releases the crusher cutter bearing and reduces the down-stream washing burden  
Conical pre-washer ensure the bottom water in stationary condition, which do help for sand and impurity/waste sediment

初步清洗，洗出部分泥沙。  
放置在破碎机前面，保护破碎机刀，缓解下游清洗压力。  
锥形底部设计，确保泥沙在水静止状态下沉淀，排出泥沙和杂质



## TWO TAPPER FLOATING WASHER

### 双轴拍打洗

Two paddle tapper get patting and washing material by rotating  
Bottom stainless steel conveyor transfer material to thumbwheel for floating washing and waste separating  
Side discharge screw or pneumatic valve with discharging waste at large extent

双拍打桨叶高速旋转，对物料进行拍打清洗  
底部不锈钢传送带输送物料至波轮，物料进行漂洗和分离  
侧面排料螺旋或气动排污阀，最大限度地排出杂质

**PLASTIC SQUEEZER**  
塑料挤干机

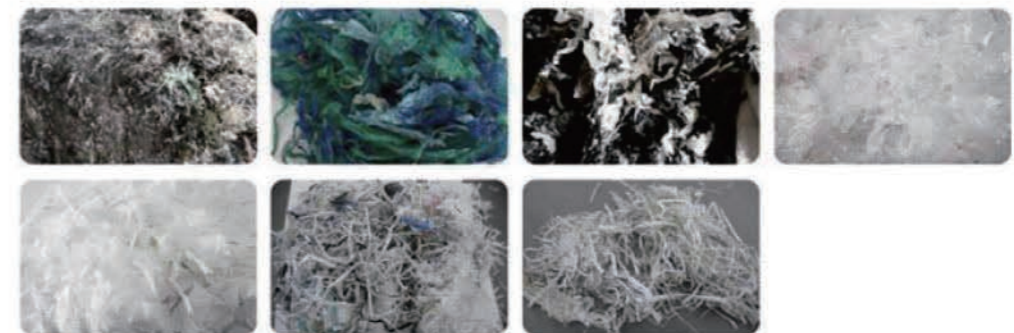


The moisture content of the film after washing is too high, which affects the quality of the particles produced. The conical screw of the squeeze dryer pushes the material, squeezes out the water, and then passes through the cutting die to process the material into a semi-plasticized state. The moisture content is within 3% to 5%.

清洗后薄膜水份含量过高，影响造出粒子的品质。挤干机锥形螺杆推动物料，挤压水份，然后经过热切模头，将物料加工成半塑化状态。水份含量在3%到5% 以内。

Model	型号	NG250	NG300	NG320	NG350
Capacity(kg/hr)	产量	300	500	800	1000

Materials Before Processing



Materials After Processing

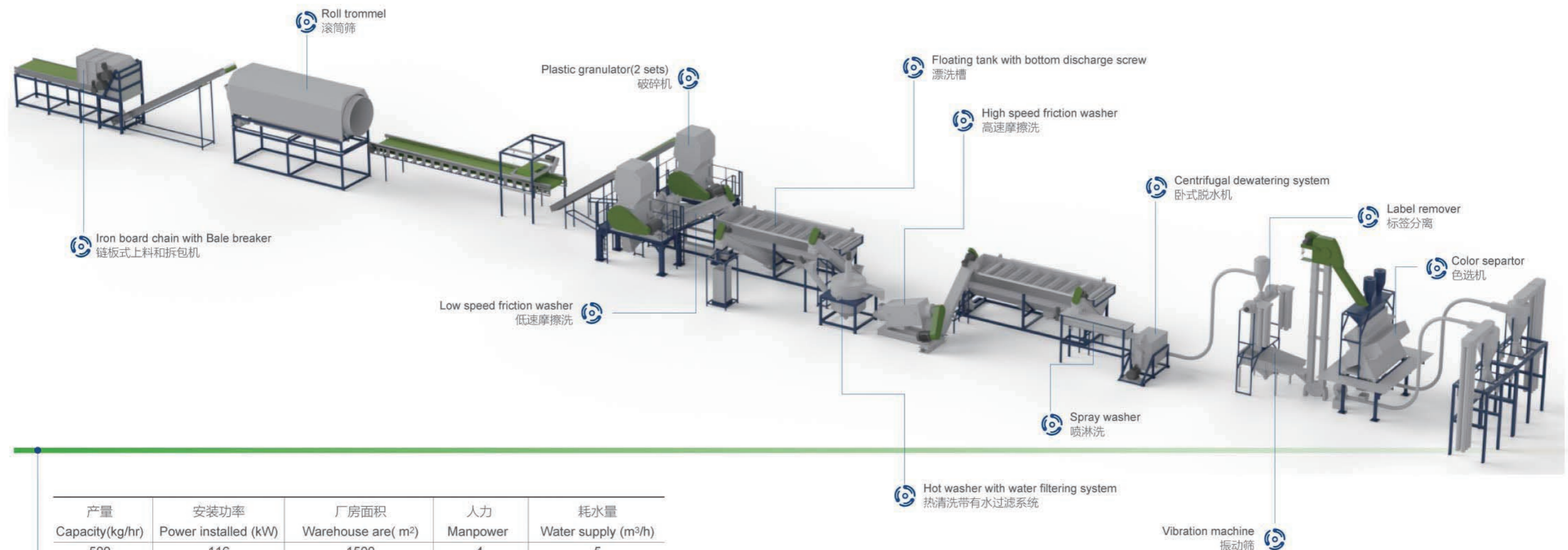


# HDPE BOTTLE/DRUMS WASHING SYSTEM

## HDPE 瓶清洗线

HDPE blue jar and pipes, PP basket, container, post-industrial bucket, milk bottle, chemical bottle, garbage container

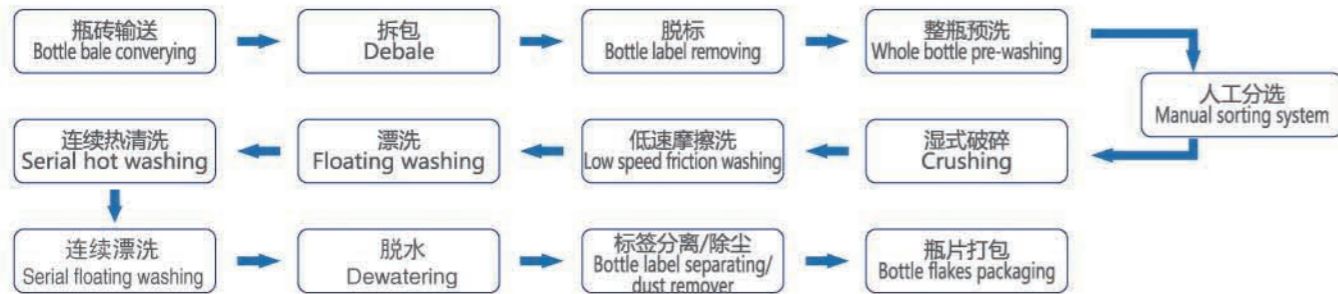
HDPE 蓝桶、管材，牛奶瓶，洗涤剂瓶，PP桶，垃圾桶，化学容器



产量 Capacity(kg/hr)	安装功率 Power installed (kW)	厂房面积 Warehouse are( m <sup>2</sup> )	人力 Manpower	耗水量 Water supply (m <sup>3</sup> /h)
500	116	1500	4	5
1000	200	1800	5	6
2000	406	2000	5	8
3000	500	2500	6	10

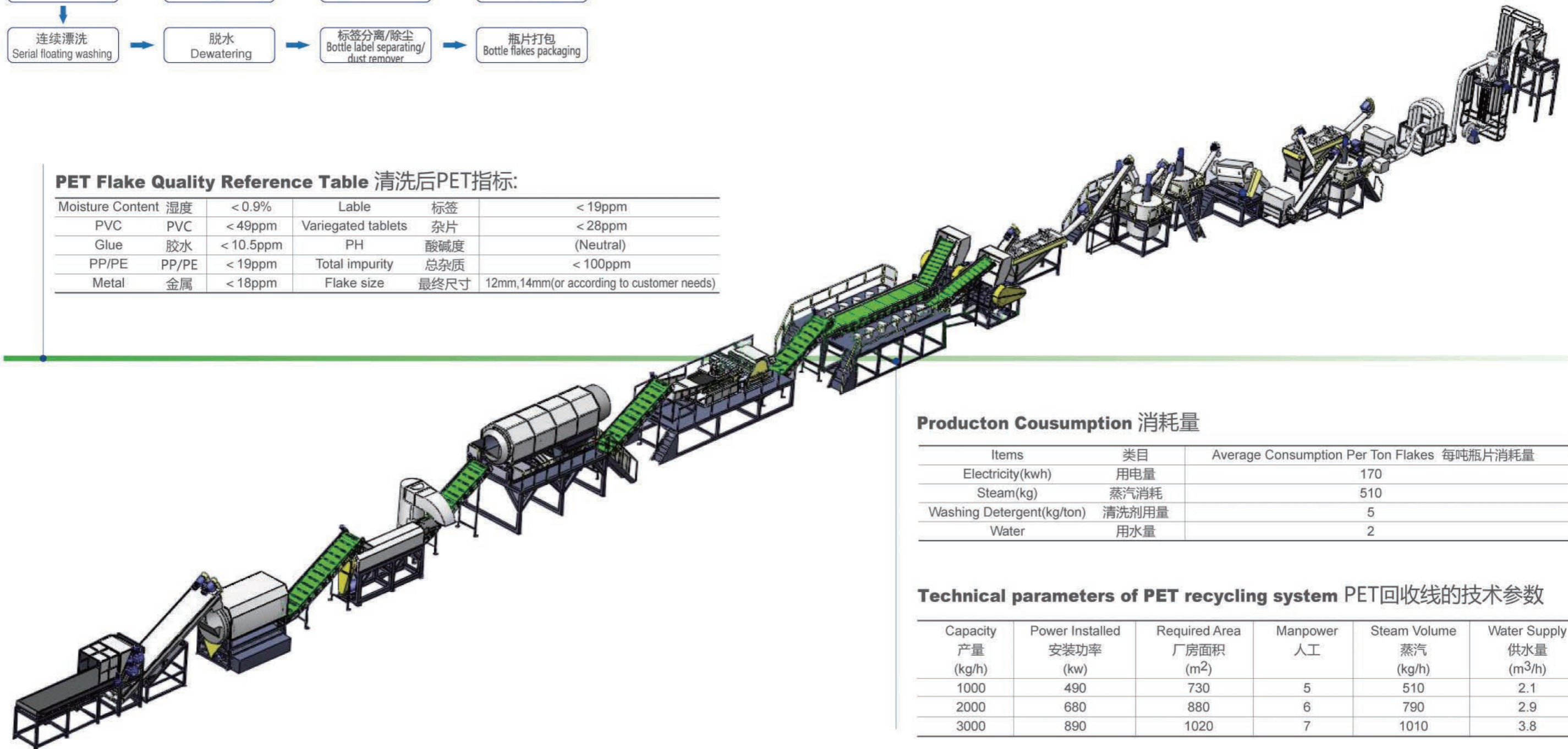
# PET BOTTLE WASHING LINE

## PET 瓶清洗线



**PET Flake Quality Reference Table** 清洗后PET指标:

Moisture Content	湿度	< 0.9%	Lable	标签	< 19ppm
PVC	PVC	< 49ppm	Variegated tablets	杂片	< 28ppm
Glue	胶水	< 10.5ppm	PH	酸碱度	(Neutral)
PP/PE	PP/PE	< 19ppm	Total impurity	总杂质	< 100ppm
Metal	金属	< 18ppm	Flake size	最终尺寸	12mm,14mm(or according to customer needs)



### Producton Cousumption 消耗量

Items	类目	Average Consumption Per Ton Flakes	每吨瓶片消耗量
Electricity(kwh)	用电量	170	
Steam(kg)	蒸汽消耗	510	
Washing Detergent(kg/ton)	清洗剂用量	5	
Water	用水量	2	

### Technical parameters of PET recycling system PET回收线的技术参数

Capacity	Power Installed	Required Area	Manpower	Steam Volume	Water Supply
产量	安装功率	厂房面积	人工	蒸汽	供水量
(kg/h)	(kw)	(m <sup>2</sup> )		(kg/h)	(m <sup>3</sup> /h)
1000	490	730	5	510	2.1
2000	680	880	6	790	2.9
3000	890	1020	7	1010	3.8

## PET RECYCLING SYSTEM

### PET回收清洗系统

#### CRUSHER

##### 破碎机

专为PET瓶破碎而设计，刀片采用进口优质材料，使用寿命长，换刀方便，破碎时产生的粉量少。

It is specially designed for PET bottle crushing, the blades are made of imported high quality material, featured by long life span, easy blade changing and lower powder produced during crushing.



#### FLOATING TANK

##### 漂洗槽

Labels and caps scraps with a specific gravity smaller than water are floating on the water, while the bottle flakes with a specific gravity greater than water will sink in the tank.

PET bottle flakes, labels and bottle caps can be separated in the floating washing process.

密度比水小的标签，瓶盖漂浮在水面，密度比水大的瓶片沉入水底。

PET瓶片和标签瓶盖在漂洗过程中进行分离。

## PET RECYCLING SYSTEM PET回收清洗系统

### LABEL SEPARATOR 标签分离机

It is intentionally designed to remove PVC label scraps and dust in PET flakes. 99.9% labels get removed by primary label separator and end label remover.  
Keep IV viscosity of washed PET bottle flakes.  
为去除PET瓶片中剩余的PVC标签残留物和灰尘。通过前后标签分离，99.9%标签和瓶盖得到去除。保证了清洗后的PET瓶片的粘度不会有变化。



### HOT WASHER 热清洗



### LABEL REMOVER 脱标机

It will preliminarily scrape off the labels on compressed bottles and non-compressed bottles to reduce the content of non-PET substances downstream.  
初步刮除压缩瓶，以及非压缩瓶子的标签，减少下游非PET物质的含量。



**SHREDDER AND CRUSHER SYSTEM**  
撕碎机破碎机系统



**SIDE FEEDER**  
侧喂料



**SEMI-AUTOMATIC PACKING MACHINE**  
半自动包装机



**LOSS-IN-WEIGHT FEEDER**  
失重喂料



**MIXING SILO**  
混合料仓

**PULVRIZER 磨粉机**



**Pulverizer Application:**

- Plastic refinement recycling
- Engineer plastic blending
- Rotational moulding
- PE romoulding production and recycling

**磨粉机的应用:**

- 塑料细度回收
- 工程塑料混合
- PE滚塑生产和回收

Model	型号	MF400	MF500	MF600	MF800
Processing raw material	处理物料	PE, PP,PVC,ABS,EVA,PET,PS,PPS,EPS,PC			
Capacity(kg/h)	产量	50-300	80-500	120-800	200-1200

The capacity will be vairable as the raw material property,input raw material size, final mesh size etc.  
产量随物料的特性，进料的尺寸，最终产品的细度等决定

**GANTRY PELLETIZER 龙门切粒机**



切粒机辊  
Pelletizer roller



切粒机动刀  
Pelletizer rotary blades



**VIBRATOR SCREEN 振动筛**



Model	型号	TBQ50	TBQ100	TBQ150	TBQ200
Capacity	产量	50	300	500	800