

GUANGDONG LIANSU MACHINERY MANUFACTURING CO.,LTD

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www.ls-extrusion.com

GUANGDONG LIANSU MACHINERY MANUFACTURING CO.,LTD

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### COMPANY PROFILE

LIANSU has dedicated in plastic pipe extrusion equipment manufacturing for 30 years, and be committed to providing plastic pipe manufacturers with the whole industry chain of extrusion processing solutions, including Automatic Plastic Material Compound & Conveying System, and the downstream of on-ine socket and packaging device, also integrates the digital management of equipment IoT to improve production management efficiency and reduce the production cost for customers.

### 1999-2002

In 1999,The first developed aluminum plastic pipe production line equipment come out ■ In 1999, Yunan Liansu Machinery Co., Ltd founded In 2000, domestic first developed PPR production line come out

DELAISIBAO (China) plastic machinery Co.,Ltd (Sino German jointenture) founded in January 1st,2001 Guangdong Liansu Machinery Company New address Liansu Industrial A zone founded in January, 2002

### 2004-2008

Company Passed the audit of quality, safety and environmental management system (QEO) in August 2004; and also honored as Europe CE certificate

In 2005,recognized as "Famous Trademark of Guangdong Province". Liansu Machinery New address Liansu Industrial C zone founded in August,2007

In 2007,the LSP-1000PE pipe production line won the third prize of Foshan Science Progress Award.

In 2008,the multi-layer co-extrusion plastic pipe equipment received financial support from major scientific and technological projects in Shunde District and was entitled as a famous brand product in Guangdong Province.

Established in 1994



### 2014-2023

In 2014, 'Liansu injection molding machine was awarded as a famous brand product in Guangdong Province. The project of 'Research and development and industrialization of high-performance numerical control equipment based on plastic processing process' was accepted in 2016.

In 2019, passed the clean production audit of Guangdong Province In 2019, PVC intelligent mixing and dosing flexible integrated system won the national award.

In 2020, re-identified as a high-tech enterprise; Won the 'national high-tech enterprise' Awarded 280 patents in 2012-2022.

In 2021,acquired "AEO CERTIFICATE" by customs.

In 2023,recognized as "National High-Tech Enterprise" "Top 100 Shunde Private Manufacturing Industries in 2023"

### **FULL-DIRECTION SERVICE**



LIANSLI

### 1994-1998

Guangdong Liansu Machinery Manufacture Co.,Ltd In 1998, First passed ISO 9000 quality management system certification in the industry In 1998,New product developed" Conical twin





In 2009, Company awarded as Guangdong Province equipment manufacturing industry 100 cultivate enterprise In 2010, Honored as Guangdong Province machinery industry association standing council unit In 2011, honored as National high-tech enterprises

### 2012-2013

In 2012, honored as Guangdong Province work safety standardization three-level enterprise

Honored as Guangdong Province machinery industry association vice-chairman unit in 2012; Chinese Plastic machinery association council memberLiansu Machinery New address Liansu Daba Industrial zone founded in October 2012

In 2013,the multi-layer co-extrusion cast film equipment was entitled as a famous brand product in Guangdong Province.





### HONORS & CERTIFICATES

- First passed ISO9000 quality management system certification in the industry in 1998.
   New product develop 'conical twin extruder ' come out in 1998, on behalf of Liansu Machinery Manufacture Industry enter into conical twin era, Liansu Machinery leading the industry
- The first developed aluminum plastic pipe production line equipment come out in 1999.
- Domestic first developed PPR production line come out in 2000, marked Company product research and development technology higher. Research and development of PPR pipe extrusion production line is the only one honored by Construction Ministry as 'National advanced level' in the industry.
- Again passed ISO9001 quality management system certification in the industry in 2002.
- New product developed PC sunlight sheet production line in 2002,rely on its excellent working performance and leading technology level to win the favor of customers.
- Large diameter hollow wall spiral pipe production line developed by company in 2004,be honored as '2004 science and technology key project' by Construction Ministry; PE 1000 large diameter pipe production line won the 'national torch plan project'.
- Company passed the audit of quality, safety and environmental management system (QEO) in August 2004; and also honored as Europe CE certificate.
- Identified as 'Guangdong Province famous trademarks' in 2005
- In 2006, research of PE spiral internal and external screw thread connection technology, won the Shunde zone major scientific and technical project fiance support.
- In 2007, LSP-1000PE pipe production line won the scientific-technical progress Third Place of
- In 2008, research of PEX/PERT and EVOH multi-layer co-extrusion plastic pipe processing complete equipment got the Shunde zone major scientific and technical project fiance support.
- In 2008.honored as Guangdong Province Brand product .
   In 2009, Company awarded as Guangdong Province equipment manufacturing industry 100
- In2009, 'AC low-rotating speed high-torque motor drive high-yield screw extruder series technical transformation ' won the Guangdong provincial financial support for the equipment manufacturing industry technical transformation project.

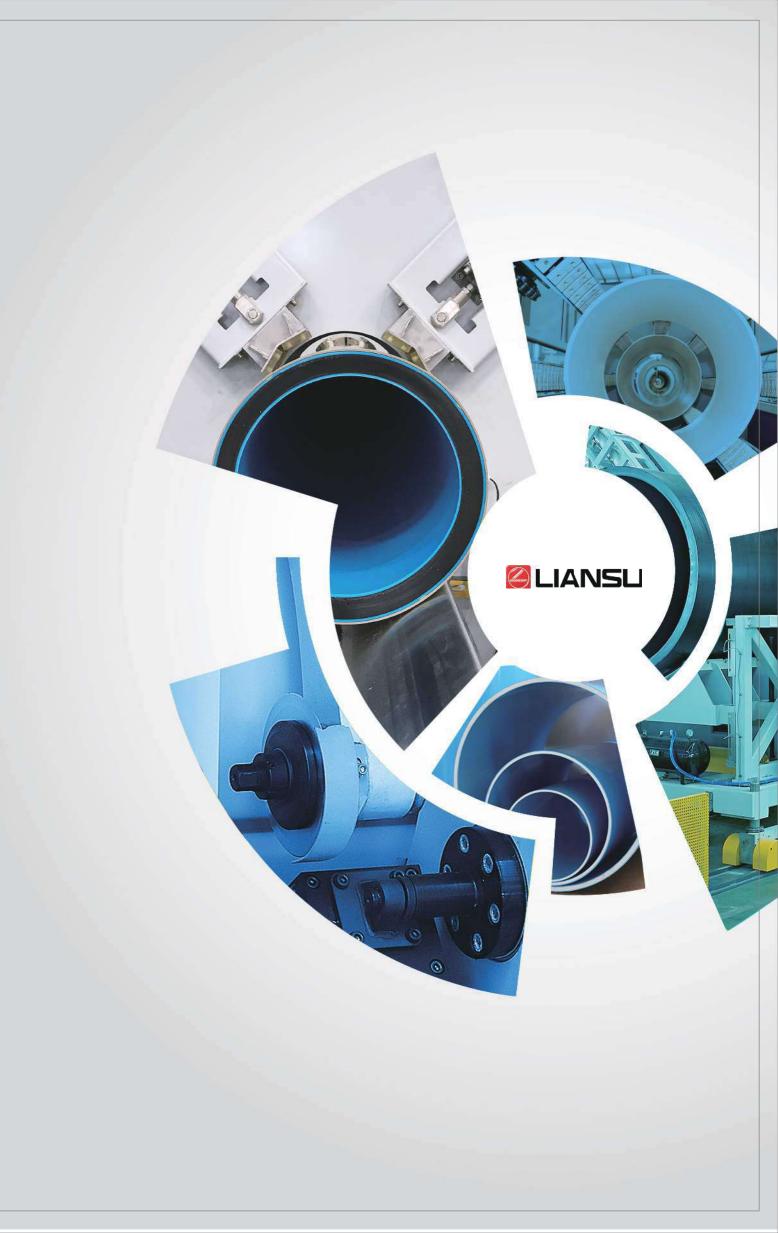
  In 2009,research of PEX.PERT and EVOH multi-layer co-extrusion plastic pipe processing
- complete equipment honored as science and technology second place of Foshan city
- In 2010, won Shunde Zone plastic extrusion equipment engineering technology center
- In 2010, honored as Guangdong Province machinery industry association standing council unit.





- In 2010, honored as Shunde zone excellent enterprise growth project key supporting enterprise
- In 2011, won the Annual Provincial Government Quality Award.
- In 2011, plastic extrusion equipment engineering center was established.
- In 2011, honored as National high-tech enterprises.
- Honored as Guangdong Province machinery industry association vice-chairman unit in 2012; Chinese plastic machinery industry association council member.
- 2013 provincial famous product :Multi-layer co-extrusion casting film production line
- In 2013, won the First prize of the Shunde science and Technology: torque motor single screw extruder
- In 2014, rated ad the second-class enterprise of safety production standardization in Guangdong Province. ■ In 2014, won the Third prize Foshan city science and Technology: torque motor single
- screw extruder. ■ In 2014, 'single screw plastic extruder' won the Third prize of Guangdong Science and
- Technology Award. ■ In 2014, 'singe screw plastic extruder' won the Third prize of Foshan city Science and
- Technology Award. ■ In 2014, 'Liansu injection molding machine 'was awarded as a famous brand product
- in Guangdong Province. ■ Pass the 2015 creative application demonstration project inspection of first-generation
- numerical control mechanical products of Guangdong province. ■ In 2015, rated as hundred intelligent manufacturing project pilot demonstration
- enterprises.
- The project of 'Research and development and industrialization of high-performance numerical control equipment based on plastic processing process' was accepted in
- In 2016, 'LSCPE-2500 high-speed Wide-width Breathable Film production line 'won the provincial 'research and development and using of the first set with major
- In 2016, leading casting equipment won the first unit (set) award of Guangdong
- In 2017, 'PVC intelligent mixing and integration system 'won the provincial 'research and development and using of the first set with major technical equipment'.
- In 2017, re-identified as a high-tech enterprise
- In 2019, passed the clean production audit of Guangdong Province .
- In 2019, PVC intelligent mixing and dosing flexible integrated system won the national
- In 2020, re-identified as a high-tech enterprise:
- Won the 'national high-tech enterprise
- Awarded 280 patents in 2012-2022.
- In 2023, awarded the title of Shunde Top 100 Private Manufacturing Enterprises.
- In 2024, became a digital intelligent demonstration workshop in Foshan
- In 2024, various products such as pipe extrusion equipment, material handling system, and servo motors were fully certified with a series of CE certificates.



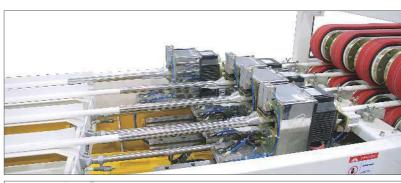


## **LS-PVC Conduit**

Four Pipe Production line

### **MAIN FEATURES**

- The main machine is equipped with conical twin-screw extruder, and equipped with special
- permanent magnet synchronous servo motor for extruder, with high output and energy saving
- Equipped with on-line automatic packing mechanism, efficient and manpower saving.
- Production data acquisition and analysis system can be selected to realize transparent production management.







### HAULING+CUTTING+PACKING COMBO

- Hauling+cutting+packing three in one design, saving space, stable.
- Simple and reliable swarfless cutting, stable performance.
- Vacuum alarm and automatic removal of waste pipe.
- Unique bundling & bagging design, stable pipe packing performance.

### **VACUUM**

The vacuum of each tank is controlled independently, which can save energy and reduce noise. Vacuum alarm and send signal to automatically cut the waste pipe.



### PIPE HEAD

 Suitable for electric cable duct production, reasonable flow channel design, large compression ratio, ensure plasticizing effect.





- Optional four pipe on-line socket machine.
- Double-station, heating and socketing design, it can finish 15 pipes socketing in one minute.





MODEL	EXTRUDER MODEL	MAX HAULING SPEED (m/min)	MAX OUTPUT (kg/h)	TOTAL INSTALLED POWER (kw)	PRODUCTION LINE LENGTH (m)
LSFP-32PVC	LSE-80	20	450	165	25

## LS-PVC

### Double Pipe Production line

### **MAIN FEATURES**

- L/D parallel twin screw and conical twin screw extruder and equipped with permanent magnet synchronous servo motor, online dosing of various raw materials, flexible, high-output and energy-saving.
- The vacuum adopts frequency conversion closed-loop control, which is energy-saving and stable.
- Equipped with swarfless cutting, high speed, environmental protection, online automatic packing mechanism, saving manpower.
- Production data acquisition and analysis system can be selected to realize transparent production management.





### PIPE HEAD

- Reasonable runner design ensures large extrusion and compression ratio of mould.
- Pipe head structure is convenient for quick installation and disassembly.



### **EXTRUDER**

■ Provides high output conical twin screw extruder and parallel twin screw extruder for selection, high output and energy-saving. Realize online pigment feeding and flexible color change.





### **HAUL-OFF UNIT**

■ Each hauling station is controlled independently and adopts servo control to ensure large speed regulation range.





### **CUTTER**

■ Double station cutting independent control, using swarfless cutting, clean and smooth incision.







### **VACUUM**

■ Double tank body vacuum independent control, adopts variable frequency closed-loop control, great energy saving and reduces noise.

### MAIN TECHNICAL PARAMETER

MODEL	EXTRUDER MODEL	MAX HAULING SPEED (m/min)	MAX OUTPUT (kg/h)	PRODUCTION LINE LENGTH (m)
LSDP (H) -63PVC	LSE92/188	25x2	750	45
LSDP-63PVC	LSE-80	25x2	450	45
LSDP (H) -75PVC	LSE-92/188	25x2	750	45
LSDP (H) -75PVC	LSPD93-36	25x2	650	45
LSDP (H) -110PVC	LSE-115/225	15x2	1450	50
LSDP-110PVC	LSE92	15x2	850	50

### LS-UPVC

High Speed Extrusion Line

### **MAIN FEATURES**

- Large L/D extruder + multi-component loss-in-weight feeders, to achieve online accurate dosing and mixing of mixed materials/calcium powder/return materials.
- Online formula fast switching + zero downtime online color dosing, flexible response to small order needs.
- Loss in weight automatically controls pipe meter weight, reduces raw material consumption, and achieves good quality and low cost.
- Socketing machine is equipped with online weighing, which can monitor the pipe weight in real time to ensure product quality.



### **CUTTER**

 Swarfless cutter adopts universal clamping structure, which can achieve flexible and high-speed cutting for pipes of different lengths, and the self-balancing structure ensures uniform chamfering of the pipes.



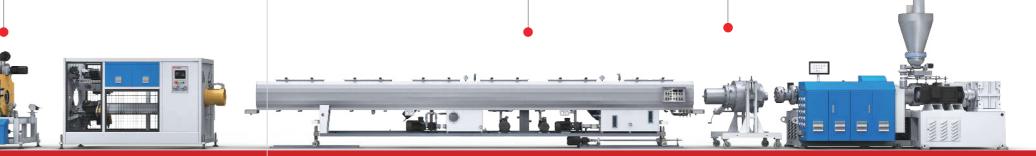
### **VACUUM**

It adopts fully automatic negative pressure closed-loop control system, which greatly saves energy and reduces noise.



### PIPE HEAD

■ It adopts double compression structure to ensure balanced flow of materials, which is very suitable for handling raw materials that are extremely sensitive to temperature.



CUTTER VACUUM TANK HAUL OFF UNIT PIPE HEAD **EXTRUDER** 



Adopted synchronized servo drive solution to ensure the wide speed range of hauling.

### **HAUL-OFF UNIT**

### **SOCKET MACHINE**

■ It is equipped with online weighing function, which can monitor the pipe weight in real time to ensure the pipe quality.





## **EXTRUDER** ■ 36 L/D ratio parallel twin-screw extrude with high output and low energy consumption. It is suitable for high viscosity and high melting loss materials, optimizes fluidity and improves product quality. The extruder is equipped with Mconvey multi-component loss-in-weight feedres with accurate dosing and ensure stable material conveying without bridging.

MODEL	EXTRUDER MODEL	MAX LINE SPEED (m/min)	MAX OUTPUT (kg/h)	PRODUCTIONLINE LENGTH (m)
LSP (H) -160	LSE-92/188-H	12	1200	53
LSP (H) -160	LSPD135-36	20	1300	53
LSP (H) -250	LSE-115/225	10	1400	58
LSP (H) -250	LSPD135-36	10	1400	60

### LS-UPVC

Foam Core Pipe Extrusion Line

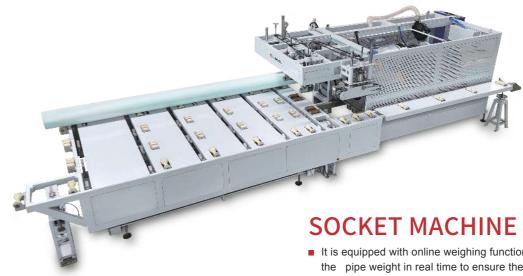
### MAIN FEATURES

- Large L/D extruder + multi-component loss-in-weight feeders, accurate extrusion on each layer.
- Patented design of distributor + constant temperature pipe head, efficient extrusion and quality in one step.
- Online weighing & scoketing, pipe weight can be controlled in real time.



### **PIPE HEAD**

- Dedicated pipe head and distributor design ensure high output and stable temperature control.
- The pipe head is designed through simulation to ensure uniform flow channel distribution and ensure the consistency of foaming effect.
- The distributor is configured to adjust the material flow rate, ensure uniform mixing and stable output, improving overall production efficiency and product quality.



■ It is equipped with online weighing function, which can monitor the pipe weight in real time to ensure the pipe quality.





### **CUTTER**

■ Swarfless cutter adopts universal clamping structure, which can achieve flexible and high-speed cutting for pipes of different lengths, and the self-balancing structure ensures uniform chamfering of the pipes.

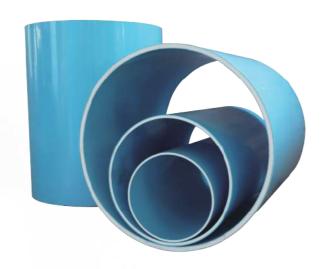


- 36 L/D ratio parallel twin-screw extrude with high output and low energy consumption. It is suitable for high viscosity and high melting loss materials, optimizes fluidity and improves product quality.
- The extruder is equipped with Mconvey multi-component loss-in-weight feedres with accurate dosing and ensure stable material conveying without bridging.



### **VACUUM**

 It adopts fully automatic negative pressure closed-loop control system, which greatly saves energy and reduces noise.



### **HAUL-OFF UNIT**

Adopted synchronized servo drive solution to ensure the wide speed range of hauling.

MODEL	PIPE RANGE (mm)	MAX OUTPUT (kg/h)	PRODUCTIONLINE LENGTH (m)
LSP-110	63-110	460	27
LSP-160	75–160	560	27
LSP-250	110-250	560	29
LSP-315	110-315	700	50
LSP-400	110-400	800	50
LSP-630	315-630	1130	50

# LS-UPVC

### Pipe Production Line

### **MAIN FEATURES**

- Extruder is equipped with large L/D ratio parallel twin screw or conical twin screw extruder, main motor equipped with permanent magnet synchronous servo motor, with high output and energy saving.
- Vacuum adopts frequency conversion closed-loop control, which is energy-saving and stable.
- Socket equipment with on-line weighing fuction, ensure pipe quality and efficiency.
- Production data acquisiton and analysis system can be selected to realize transparent management production management.
- With online socket machine.



### **CUTTING MACHINE**

 Planetary cutting adopts multi-point clamping structure, lens type sealing, self balancing counterweight and automatic profiling structure to ensure uniform chamfering and good dust collecting effect.



### **VACUUM**

 Adopts inverter drive closed-loop control, great energy saving and reduces noise.



### **EXTRUDER**

■ High output and energy-saving. Realize online pigment feeding flexible online color change.



**EXTRUDER VACUUM TANK** PIPE HEAD

### PIPE WEIGHING STACKER

Stacker with weighing and data acquisition function, open source data integration.



STACKER

CUTTER

HAUL - OFF UNIT



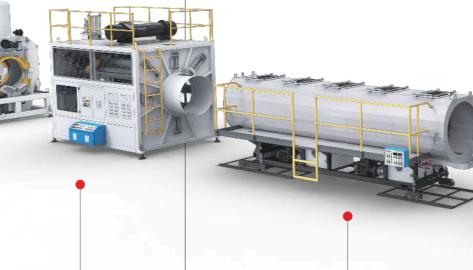
### **HAUL-OFF UNIT**

Synchronous servo drive scheme is adopted for hauling and winch device to ensure more than 50 times of stable large speed regulation range, stable speed and reduce waste products.



### MAIN TECHNICAL PARAMETER

MODEL	PIPE RANGE (m)	EXTRUDER MODEL	MAX OUTPUT (kg/h)	MAX HAULING SPEED (m/min)	PRODUCTION LINE LENGTH (M)
LSP-400PVC	Ø110-Ø400	LSE-92	750-820	2.4	32
LSP-630PVC	Ø160-Ø630	LSE-92	750-820	1.6	33
LSP-800PVC	Ø280-Ø800	LSE-95	1000-1050	1.6	46
LSP-1000PVC	Ø630-Ø1000	LSE-95	1000-1050	0.6	50



### PIPE HEAD

- Reasonable design of flow channel ensures large extrusion and residence time of melt in mould.
- Pipe head structure is convenient for quick installation and disassembly







### **SOCKET MACHINE**

■ Double-layer heating inside and outside the pipe, double heating furnace to ensure the quality and efficiency of socket.

## LS-PPR

### MAIN FEATURES

- Extruder adopts large L/D ratio screw desing,equipped with dedicated permanent magnet synchronous servo motor to realize high output and energy saving.
- Vacuum adopts frequency conversion closed-loop control, which is energy-saving and stable.
- Haul off and winch device adopts servo control to ensure stable production in large speed regulation range.
- Equipped with online automatic bundling and bagging device for straight pipe, efficient and save labor.
- Production data acquisition and analysis system can be selected to realize transparent management production management.

### HAUL-OFF

■ The hauling adopts servo control to ensure more than 50 times of stable speed regulation range, high speed and stable hauling.





**BATH TANK** 

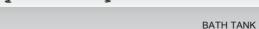
### **CUTTER**

■ Double station independent control, using large inertia flying knife servo motor, fixed length using "PLC free control", simple & reliable





HAULING+CUTTING COMBO

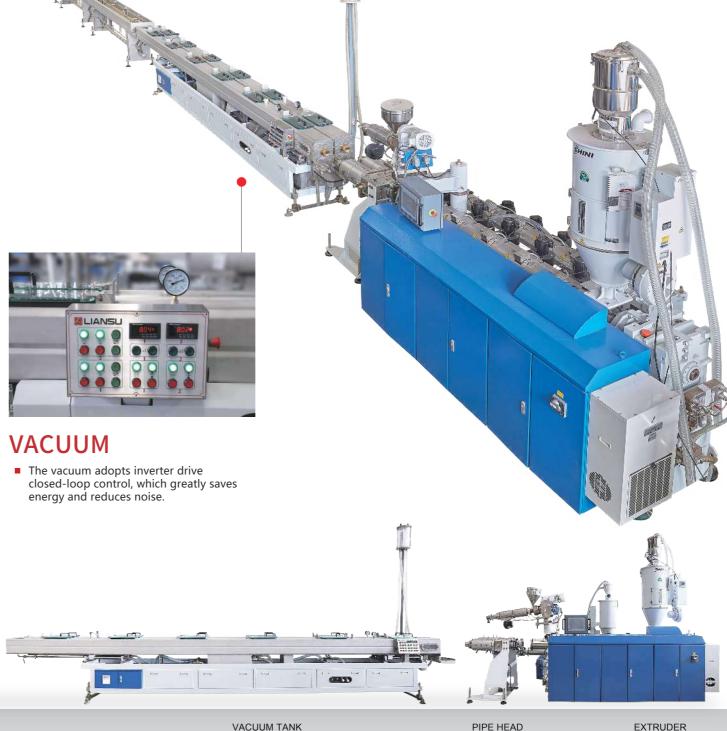






### MAIN TECHNICAL PARAMETER

MODEL	PIPE RANGE (mm)	MAX OUTPUT (kg/h)	MAX HAULING SPEED (m/min)	LINE LENGTH (m)
LSDP-32PPR	Ø16-Ø32	350	40	50
LSP-63PPR	Ø16-Ø63	300	25	53
LSP-110PPR	Ø20-Ø110	300	18	53
LSP-160PPR	Ø32-Ø160	400	12	53



VACUUM TANK

**PACKING** 

Automatic packing online to reduce labor cost.









- Single or multi spiral die head structure, single or multi-layer structure can be provided, uniform wall thickness.
- The setting die adopts sleeve structure, with forced water cooling at the inlet, which is stable at high speed.



- **EXTRUDER**
- The extruder adopts 40 L/D ratio high-output screw, energy saving and low noise.
- Matching online color masterbatch addition, flexible production of single layer and double layer PPR pipes.

## LS-PPR

### MAIN FEATURES

- Extruder adopts large L/D ratio screw desing,equipped with dedicated permanent magnet synchronous servo motor to realize high output and energy saving.
- Vacuum adopts frequency conversion closed-loop control, which is energy-saving and stable.
- Haul off and winch device adopts servo control to ensure stable production in large speed regulation range.
- Equipped with online automatic bundling and bagging device for straight pipe, efficient and save labor.
- Production data acquisition and analysis system can be selected to realize transparent management production management.



### **CUTTER**

■ Match flying knife cutter and swarfless cutter for option,cutting stable,



### **HAUL-OFF**

■ The hauling adopts servo control to ensure more than 50 times of stable speed regulation range, high speed and stable hauling.



### **EXTRUDER**

■ The extruder adopts 40 L/D ratio high-output screw, energy saving and low noise.

### **VACUUM**

Vacuum adopts negative pressure closed loop to automatically adjust vacuum degree, improve pipe production quality and reduce noise.

■ Vacuum alarm, and send signal to cut the waste pipe automatically.



■ The co-extruder adopts back structure to save space.



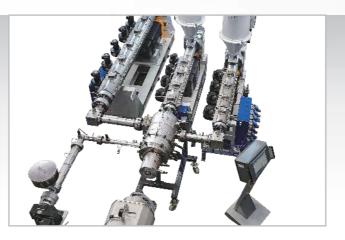






### MAIN TECHNICAL PARAMETER

MODEL	PIPE RANGE (mm)	MAX OUTPUT (kg/h)	TOTAL INSTALLED POWER (kw)	LINE LENGTH (m)
LSP-63PPR(Three layers)	Ø20-Ø63	300	245	50
LSP-110PPR(Three layers)	Ø20-Ø110	300	245	50
LSP-160PPR(Three layers)	Ø20-Ø160	300	250	58





### PIPE HEAD

- Spiral die head structure, uniform wall thickness.
- The setting die adopts sleeve structure, with forced water cooling at the inlet, which is stable at high speed.

## LS-HDPE

### Pressure and Gas Pipe Production Line

### MAIN FEATURES

- Extruder adopted large L/D screw desing with spiral feedbush desing, equipped with permanent magnet synchronous servo motor, realized high output and energy saving.
- Equiped with Melt cooler device for option, reduce melt temp for big and thick pipe, reduce material saggging, ensure even thickness.
- Pipe head adopts spiral structure and equipped with vacuum mechanism to ensure stable melt temperature under high output and reduce cooling length.
- The vacuum adopts frequency conversion closed-loop control, which is energy-saving and stable.
- Hauling adopts servo control to ensure stable production in large speed regulation range.
- Automatic swarfless cutting mechanism, realized on line automatic size change.
- Production data acquisition and analysis system can be selected to realize transparent production management.

### **HAUL OFF**

 Synchronous servo drive solution for haul off and winch device to ensure synchronization and stability within large speed regulation range, greatly reduce waste.





### **SWARFLESS CUTTER**

■ Fully automatic one button change diameter ,simple,efficieney





■ The vacuum adopts negative pressure closed loop to automatically adjust the vacuum degree, which can stabilize the pressure, improve the quality of pipe production, greatly save energy



PIPE HEAD

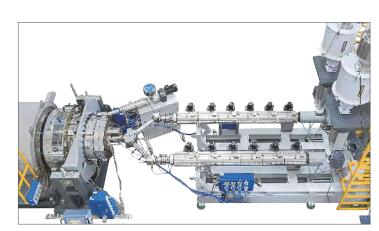
■ The die body adopts spiral structure, which is suitable for pipe extrusion in various pressure ranges. The large die body adopts internal air-cooled die to save cooling



### **EXTRUDER**

PIPE HEAD

■ The extruder adopts 40 L/D ratio high output screw, energy saving and low noise.



MODEL	PIPE RANGE (mm)	MAX OUTPUT (kg/h)	PRODUCTION LINE LENGTH (m)
LSP (H) -160PE	Ø50-Ø160	800	60
LSP (H) -250PE	Ø50-Ø250	800	60
LSP (H) -315PE	Ø75-Ø315	1200	60
LSP (H) -450PE	Ø110-Ø450	1200	62
LSP (H) -630PE	Ø160-Ø630	1800	65
LSP-800PE	Ø250-Ø800	1800	66
LSP-1000PE	Ø400-Ø1000	1800	70
LSP-1200PE	Ø450-Ø1200	1800	71
LSP-1600PE	Ø630-Ø1600	2000	82
LSP-2000PE	Ø1400-Ø2000	2200	80

# LS-Multi Layer

### Pipe Co-Extrusion Line

### **MAIN FEATURES**



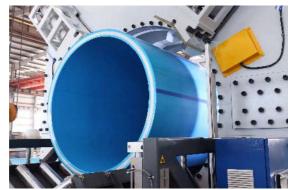




**EXTRUDER** 

- Extruder adopted large L/D screw desing with spiral feedbush desing, equipped with permanent magnet synchronous servo motor, realized high output and energy saving.
- Equiped with Melt cooler device for option, reduce melt temp for big and thick pipe, reduce material saggging, ensure even thickness.
- Multi layer Pipe head structure adopts spiral structure and equipped with vacuum mechanism to ensure stable melt temperature under high output and accurate thickness of each layer
- Vacuum adopts frequency conversion closed-loop control, which is energy-saving and stable.
- Hauling adopts servo control to ensure stable production in large speed regulation range.
- Automatic swarfless cutting mechanism, realized on line automatic size change.
- Production data acquisition and analysis system can be selected to realize transparent production management.





### **CUTTING MACHINE**

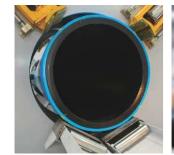




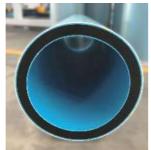
### **HAUL-OFF**

Synchronous servo drive solution for haul off and winch device to ensure synchronization and stability within large speed regulation range, greatly reduce waste

### **PRODUCTS**



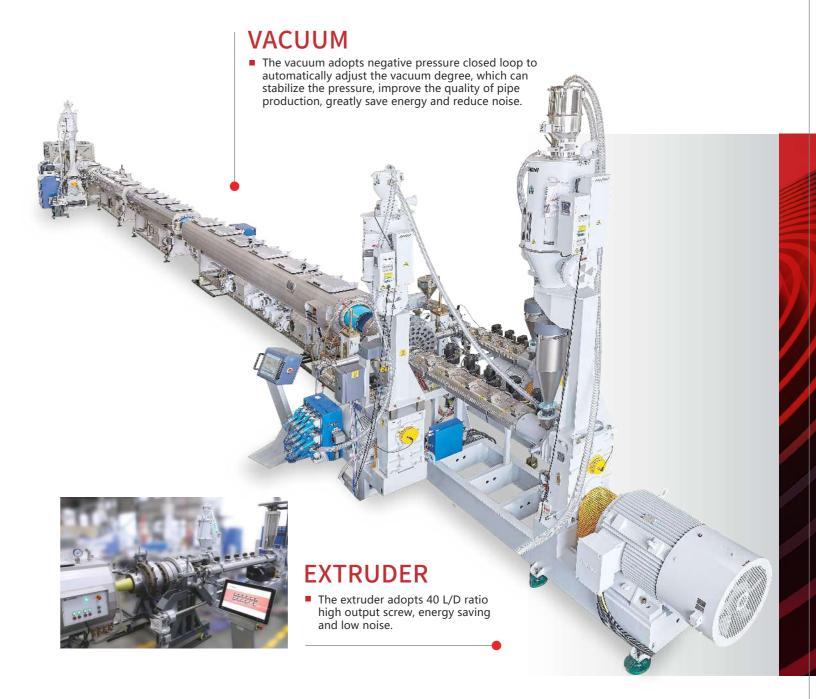






Two-layer HDPE pipe Three-layer HDPE co-extruding pipe

Four-layer HDPE co-extruding pipe Ø800Five-layer PERT thermal insulating pipe









PIPE HEAD 

Adopt spiral basket structure, easy maintenance, accurate thickness of each layer.



## LSP-PERT

Multilayer Pipe Extrusion Line

### MAIN FEATURES

- Dedicated PERT screw design.
- The high speed design of the whole line can meet the production speed of 60m/min.
- Suitable for single layer,multi-layers PERT pipe extrusion production line





**COILER** 

■ Online automatic coiling,strapping,discharging coiler, improves production efficiency.reduce labor cost.



SPRAY TANK VACUUM TANK PIPE HEAD EXTRUDER

Ø16-Ø32







### **CUTTER**

■ Fly cutting, smooth incision, servo reset, accurate length counting.

### **HAUL-OFF UNIT**

■ The haul-off unit adopts permanent magnet synchronous motor to ensure more than 50 times of stable speed range and realize the stable hauling of pipes.



# MODEL PIPE DIAMETER RANG MAX OUTPUT MAX HAULING SPEED LINE LENGTH (mm) (kg/h) (m/min) (m) LSP-32PERT-EVOH Ø16-Ø32 280 40 36





### **VACUUM**

LSP-32PERT-EVOH

 Vacuum adopts negative pressure closed loop to automatically adjust vacuum degree, stable pressure, improve pipe production quality, low noise and energy saving.



### PIPE HEAD

- Adopt spiral structure, simple maintenance, accurate thickness of each layer.
- The setting die adopts sleeve structure, with forced water cooling at the inlet, which is stable at high speed.

## LS-Pex

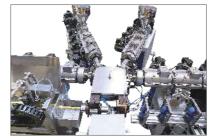
### **Aluminum Plastic Composite** Pipe Production Line

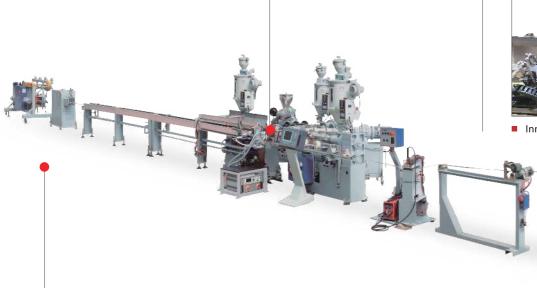
### **MAIN FEATURES**

- Unique co-extrusion technique, ensure stable and high quality extrusion
- High quality ultrasonic welding machine guarantees stable performance,
- Supplied with aluminum sheet feeding device to ensure continuous and
- Double station winder with automatic winding displacement, tension control, to achieve compact and nice coils of pipe.
- Supplied with Siemens Profibus central control system to achieve good syncrhonization and stable production.





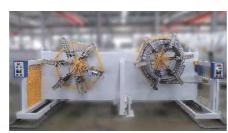


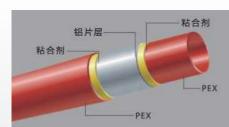
















structure diagram of polyethylene-aluminum PPR firberglass pipe. composite pipeline /PAP pipe.

### MAIN TECHNICAL PARAMETER

MODEL	PIPE DIAMETER RANG (mm)	EXTRUDER MODEL	MAX OUTPUT (kg/h)	MAX HAULING SPEED (m/min)
LSAP-32	Ø16-Ø32	LSS45-34 2set LSS40-25 2set	200	9

# LS-Single Wall

### Corrugated Pipe Extrusion Line

### **MAIN FEATURES**

- It is suitable for single-wall corrugated pipe enabling online threading and edge splitting.
- The mould adopts 40Cr nitriding treatment, offering superior wear resistance and durability.
- The forming machine is equipped with power-off protection and shaft-breakage protection devices.
- Online automatic coiler enhances production efficiency.











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MODEL	PIPE DIAMETER RANG (mm)	EXTRUDER MODEL	MAX OUTPUT (kg/h)	MAX HAULING SPEED (m/min)	LINE LENGTH (m)
LSBP-50PE	Ø16-Ø50	LSS65-30	120	25	25
LSBP-50PVC	Ø16-Ø50	LSE-55	180	25	25

## **LS-PVC Soft**

Hose Extrusion Line



### MAIN FEATURES

- Simplified structure and convenient operation.
- The produced hose is in high grade of transparent, with bright surface.
   Liansu offers transparent hose, garden net pipe, gas hose, water hose, reinforced hose and steel spiral hose.

### **COOLING**









### **CO-EXTRUSION**





### **PRODUCTS**







## LS-HDPE

Spiral Cable Duct Prodution Line



### MAIN FEATURES

- Separate type and mixing head screw structure make better plastication and mixing effect.
- Inner layer is silicon co-extrusion, so anti-electromagnetic interference for the pipe is available.
- External pipe single-wall spiral structure makes the pipe anti-bending

















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### MAIN TECHNICAL PARAMETER

MODEL	EXTRUDER MODEL	MAX OUTPUT (kg/h)	LINE LENGTH (m)
LSP110-PE	LSS65-34 2set LSS45-30 1set	400-500	45X8X4

LS-Double Wall

Spiral Pipe Production Line

### MAIN FEATURES

- Easier exchange of spiral hear
- Spiral head actuated by distribution gearbox connecting with universal joint, with more stable transmission effect.
- Cutting device with internal and external thread cutting, so that the production of the pipe connection is more convenient, meanwhile to enlarge the forming unit's production span; accurate synchronization counting to ensure accurate automatic synchronization cutting.













### MAIN TECHNICAL PARAMETER

MODEL	PIPE DIAMETER RANG (m)	EXTRUDER MODEL	MAX OUTPUT (kg/h)
LSWP-800	Ø200-Ø800	LSS-65X35, LSS-65X30	470
LSWP-1200	Ø400-Ø1200	LSS-80X34, LSS-65X30	540
LSWP-1800	Ø800-Ø1800	LSS-100X34, LSS-65X34	1000
LSWP-2400	Ø1400-Ø2400	LSS-100X34, LSS-65X34	1000
LSWP-3000	Ø2000-Ø3000	LSS-120X34, LSS-80X34	1420

LS-Conical

Twin Screw Extruder

### MAIN FEATURES

- Available material:PVC compound
- Optimized screw design, high output, good plasticization, suitable for different formulations of PVC mixture extrusion, extruder is equipped with permanent magnet servo motor, energy saving and efficient.
- It can be matched with the color mixing mechanism of online weight-loss balance to facilitate the switching of different color materials.
- PLC or PLC+data acquisition and analysis system can be selected as control system.





### MAIN TECHNICAL PARAMETER

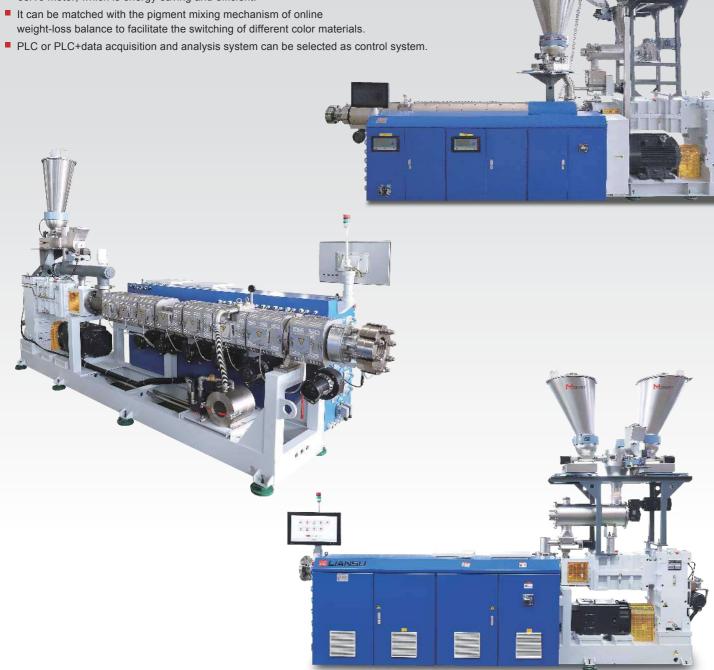
MODEL	MOTOR POWER (kw)	TOTAL INSTALLED POWER (kw)	PVC OUTPUT (kg/h)	
LSE45/97	18.5	36	150	
LSE55/110	30	62	200	
LSE65/132	30	75	320	
LSE80/156	60	128	500	
LSE92/188	110	193	900	
LSE95/191	132	215	1100	

## LS-Parallel

Twin-Screw Extruder



- For different products, different L/D ratio screw can be selected. The screw with large 36 L/D ratio is suitable for the production of national standard pipes and profiles. The extruder is equipped with permanent magnet servo motor, which is energy-saving and efficient.



### MAIN TECHNICAL PARAMETER

MODEL	MOTOR POWER (kw)	TOTAL POWER (kw)	LARGEST PRODUCTION (kg/h)	
LSPD75-32	45	85	400	
LSPD75-36	55	95	550	PIPE
LSPD93-32	55	125	550	DEDICATED
LSPD93-36	75	135	750	
LSPD114-32	108	180	1200	

# LS-Single Screw Extruder

### MAIN FEATURES

- Available material:PP/PPR,HDPE,PC,granular PVC.
- Different specifications and L/D ratio match the extrusion production demand of different output and materials
- Screw large 40 L/D ratio series extruder, high output, stable melt temperature, equipped with permanent magnet servo motor, energy saving.
- PLC or PLC+data acquisition and analysis system can be selected as control system.











MODEL	HDPE OUTPUT (kg/h)	MOTOR POWER (kw)	
LSS30-25	1.5	1.1	
LSS30-25B	4.5	2.2	
LSS45-30	30~40	15	
LSS65-30	120	37	
LSS65-34	250	75	
LSS65-35	350	90	
LSS80-34	420	110	
LSS80-35	540	132	
LSS100-34	750	200	
LSS120-33	1000	250	
LSS150-34	1200	355	

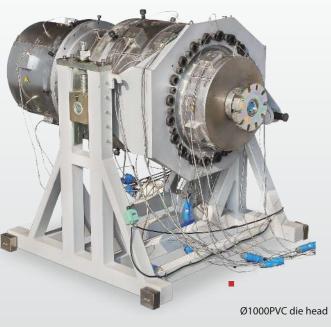
MODEL	HDPE OUTPUT (kg/h)	MOTOR POWER (kw)	
LSS50-40	300~340	75	
LSS65-40	520~550	132	
LSS80-40	820~870	200	
LSS100-40	1150~1200	280	
LSS120-40	1300~1400	355	

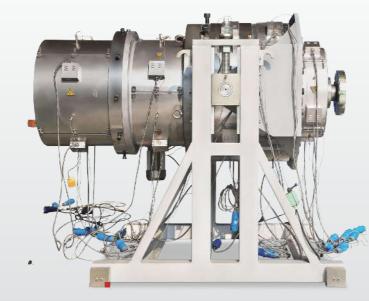
## LS-PVC

### **Pipe Head**

### MAIN FEATURES

- Liansu develops PVC single layer and multilayer pipe heads,Max die head upto.Ø1000mm PVC single layer pipe , .Reasonable compression ratio design guarantees good plasticizing effect.
- Easy dismounting and mounting of the die head structure, guarantees the efficiency production.
- Comunication calole duct mould.
- Different kinds of profile mould.





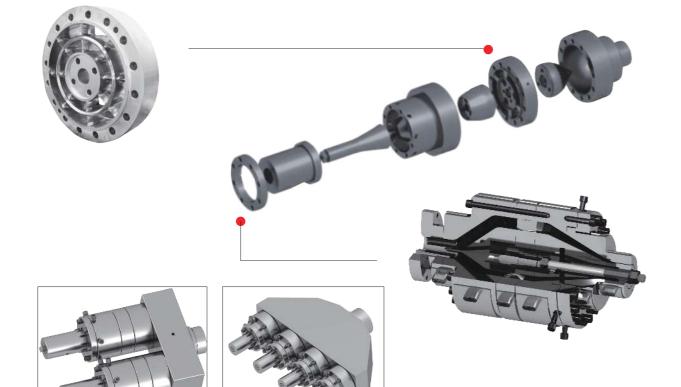
DVC 900









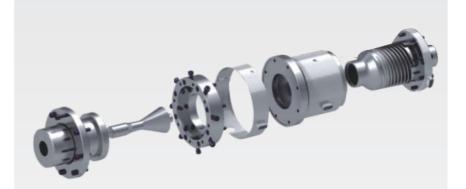


## LS-HDPE

Single layer & Multilayer Pipe Head

### **MAIN FEATURES**

■ Based on the spiral distributing principle, the PE pipe die head can meet the pipe of different O.D. and wall thickness from 10 to 1600mm. Adopting special spiral distributor design and melt flow, which can effectively protect the features of the raw material during processing while shortening the cleaning time of the die head.



Single layer pipe die head structure



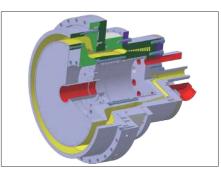
Structure of coextrusion die head for multi-layer pipe

### Base on the market requirement, Liansu offer the extrusion mould as below:

- \$\psi 16-\$\psi 1600 pressure sewage solid pipe mould.
- \$\phi\$63-\$\phi\$1200 doulole wall corrugated pipe mould.
- \$\phi\$16-\$\phi\$250 single-wall corrugated pipe mould.



■ MOLD-PE-SPRIOAL HEAD



■ SINGLE-LAYER MOLD

## Calibrating

### MAIN FEATURES

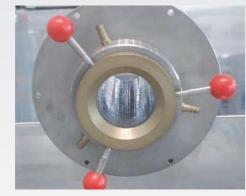
■ The vacuum calibration system, which is developed by Liansu, allows the extrusion of pipes with dimensions in accordance with the international standard. The vacuum calibrator that transmits the heat excellently as the sleeve is highly wear-resistant.

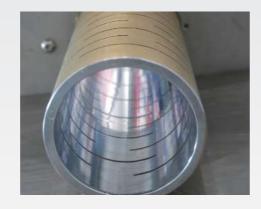




















### LS-Tank

Vacuum Energy Saving Control

### MAIN FEATURES

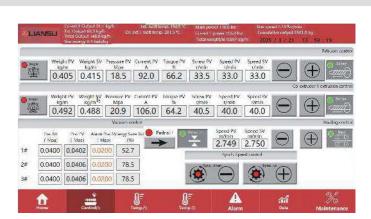
- The whole tank is made of stainless steel 304, durable and reliable, and can be moved forward and backward by electric control.
- Large capacity filter screen to ensure the cleanliness of spray water.
- Vacuum adopts negative pressure closed loop to automatically adjust vacuum degree, improve pipe production quality, reduce noise by more than 30dB, save energy by 30~85%.
- The pipeline is welded with stainless steel elbow to reduce the pressure loss of water pump.





### VACUUM AUTOMATIC CONTROL

It adopts vacuum negative pressure closed-loop control, HMI sets the pressure required for pipe sizing, starts the vacuum pump to send signals to inverter through the negative pressure sensor, automatically adjusts the speed of the vacuum pump, quickly achieves the constant negative pressure without manual pressure relief, achieves the energy-saving effect and improves the production stability.









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### **LS-Haul Off Unit**

### MAIN FEATURES

- According to the pipe of different sizes and speed requirements, we have also developed multi caterpillar and large speed ratio hauling mechanism, such as two-cateroillar haul-off unit, three-cateroillar haul-off unit, four-cateroillar haul-off unit, six-cateroillar haul-off unit, eight-cateroillar haul-off unit and ten-cateroillar haul-off unit.
- The whole series of haul-off unit adopt the scheme of "one pull more" each caterpillar independent permanent magnet synchronous servo motor, which can ensure more than 50 times of stable large speed regulation range, and can meet the fast hauling of small-sized pipe and slow hauling of large-sized thick wall pipe at the same time, with stable speed and strict synchronization of each caterpillar.
- Optional pre hauling device (winch).













eight-caterpillar

■ twelve-caterpillar







sixteen-caterpillar

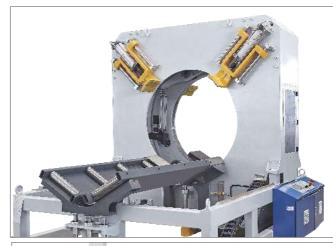
## LS-Cutting

### **MAIN FEATURES**

■ HDPE pipe specification from 20-1200MM are all adopt full automatic swarfless cutting mechanism which can full-automatic variable diameter. If change the specification ,just need set the 'pipe diameter' and 'pipe wall thickness' on the touchable screen, that is 'one key' to adjusting automatically; 'cutting blade position', 'feeding depth', 'pipe center' and other position are foolproof operation.Bid farewell to the traditional specifications of many complex adjustments, improve the adjusting time for specifications, improve the service life of cutting tools!

■ Adopt the double blade structure which is the 'circular blade'+' sharp blade' combination, to realize the perfect cutting of the pipe wall thickness exceed the 100mm with the smooth 、 no inside and outside flanging and swarfless!













## LS-Coiler

### MAIN FEATURES

- It can provide a variety of winding schemes according to the different speed of the production line.
- The winding and displacement of the whole series of winders adopt servo drive scheme, with good displacement effect and stable tension control.
- PP belt automatic packing and automatic discharging, high degree of automation, production speed up to 50m/min.
- Reliable tension control automatically matches different line speed.









■ PE Autornatic coiler with on line strapping

### MAIN TECHNICAL PARAMETER

MODEL	PRODUCT SERIES (mm)	COILER ID (mm)	COILER THICKESS(mm)	COILER WIDTH (mm)	POWER OF MAIN MOTOR (kw)
LSZDDJ-32	Ø16-Ø32	Ø450-Ø600	225	300	1.8X2
LSPJ-63DPE	Ø16-Ø63	Ø700-Ø1800	400	510	5.5
LSPJ-110PE	Ø50-Ø110	Ø840-Ø2600	550	700	10.5X2
LSPJ-160PE	Ø50-Ø160	Ø1000-Ø3200	480	600	10.5

## **LS-Socketing Machine**

### MAIN FEATURES

- Suitable for PVC (Ø16-Ø1000mm) and PPH (Ø50~Ø160mm) pipe socketing.
- The full range of models can be used online/offline, supporting a variety of socketing methods:flat socket,U-shaped socket, rectangular socket and rubber ring socket..
- The small pipe scoketing machine (Ø16~32mm) provides 2, 4, and 10 stations to choose, and can be equipped with a packaging machine to achieve fully automatic socketing and packaging.
- Equipped with online weighing function, real-time weight monitoring to ensure product quality.
- Supports synchronous socketing of long and short pipe to improve production efficiency.



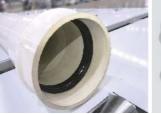




















## Standard

### ASTM standard ASTM D1784-D1785, ASTM D2265.

	Outside o	diameter		Wallthickness(mm)								
Nominalsizeinch	(m	m)	ASTM D 1784/85	5 schedule 40	ASTM D 1785	ASTM D 1785 schedule 80		n, waste, vent)				
	Min	Max	Min	Max	Min	Max	Min	Max				
1/2	21.24	21.44	2.77	3.28	3.73	4.24						
<sup>3</sup> / <sub>4</sub>	26.57	26.77	2.87	3.38	3.91	4.42						
1	33.27	33.53	3.38	3.89	4.55	5.08						
1 1/4	42.03	42.29	3.56	4.07	4.85	5.43	3.56	4.07				
1 1/2	48.11	48.41	3.68	4.19	5.08	5.69	3.68	4.19				
2	60.17	60.47	3.91	4.42	5.54	6.20	3.91	4.42				
21/2	72.84	73.20	5.16	5.77	7.01	7.85						
3	88.70	89.10	5.49	6.15	7.62	8.53	5.49	6.15				
4	114.07	114.53	6.02	6.73	8.56	9.58	6.02	6.73				
5	141.05	141.55	6.55	7.34	9.52	10.66						
6	168.00	168.56	7.11	7.97								
8	218.70	219.46	8.18	9.17								
10			9.27	10.39								

#### UPVC pipes according to SAS 14-15/1998 and DIN8062 standards.

		Clas	s 1	Clas	s 2	Clas	ss 3	Clas	s 4	Clas		ı		0
Nominal O.D.	Tolerance on O.D.	2.5	bar	4 k	4 bar		oar	10	bar	16	bar	ı	OD	
mm	(mm)	Nominal thickness	Nominal weight	Nominal thickness		Nominal thickness	Nominal weight	Nominal thickness		Nominal thickness	Nominal weight	1		M
		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)		20	20
16	+0.2									1.2	0.09		25	25
20	+0.2									1.5	0.137		32	32
25	+0.2							1.5	0.174	1.9	0.212		40	40
32	+0.2							1.8	0.264	2.4	0.342		50	50
40	+0.2					1.8	0.344	1.9	0.350	3.0	0.525		63	63
50	+0.2					1.8	0.422	2.4	0.552	3.7	0.809		75	75
63	+0.2					1.9	0.562	3.0	0.854	4.7	1.29		90	90
75	+0.3			1.8	0.642	2.2	0.782	3.6	1.22	5.6	1.82		110	110
90	+0.3			1.8	0.774	2.7	1.13	4.3	1.75	6.7	2.61		125	12
110	+0.3	1.8	0.950	2.2	1.16	3.2	1.64	5.3	2.61	8.2	3.90		140	140
125	+0.3	1.8	1.08	2.5	1.48	3.7	2.13	6.0	3.34	9.3	5.01		160	160
140	+0.4	1.8	1.21	2.8	1.84	4.1	2.65	6.7	4.18	10.4	6.27		200	200

#### GB/T 10002.1-2006 PVC-U plastic pipe.

		Clas	ss 1	Clas	ss 2	Clas	ss 3	Clas	s 4	Clas	s 5		OD tole	erence			Т	hicknes	S			
	Tolerance	2.5	bar	4 k	oar		oar	10	10 bar		10 bar				OD	(mm)		(mm)				
O.D. mm	on O.D. (mm)	Nominal thickness	Nominal weight	Nominal thickness		Nominal thickness		Nominal thickness	Nominal weight	Nominal thickness	Nominal weight		Max	Min	0.63 MPa	0.8 MPa	1.0 MPa	1.25 MPa	1.6 MPa	2.0 MPa	2.5 MPa	
		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	20	20.10	20.25						2.0	2.3	
16	+0.2									1.2	0.09	25	25.10	25.25					2.0	2.3	2.8	
20	+0.2									1.5	0.137	32	32.10	32.25				2.0	2.4	2.9	3.6	
25	+0.2							1.5	0.174	1.9	0.212	40	40.10	40.25			2.0	2.4	3.0	3.7	4.5	
32	+0.2							1.8	0.264	2.4	0.342	50	50.10	50.25		2.0	2.4	3.0	3.7	4.6	5.6	
40	+0.2					1.8	0.344	1.9	0.350	3.0	0.525	63	63.10	63.25	2.0	2.5	3.0	3.8	4.7	5.8	7.1	
50	+0.2					1.8	0.422	2.4	0.552	3.7	0.809	75	75.10	75.25	2.3	2.9	3.6	4.5	5.6	6.9	8.4	
63	+0.2					1.9	0.562	3.0	0.854	4.7	1.29	90	90.10	90.25	2.8	3.5	4.3	5.4	6.7	8.2	10.1	
75	+0.3			1.8	0.642	2.2	0.782	3.6	1.22	5.6	1.82	110	110.10	110.30	2.7	3.4	4.2	5.3	6.6	8.1	10.0	
90	+0.3			1.8	0.774	2.7	1.13	4.3	1.75	6.7	2.61	125	125.10	125.30	3.1	3.9	4.8	6.0	7.4	9.2	11.4	
110	+0.3	1.8	0.950	2.2	1.16	3.2	1.64	5.3	2.61	8.2	3.90	140	140.10	140.30	3.5	4.3	5.4	6.7	8.3	10.3	12.7	
125	+0.3	1.8	1.08	2.5	1.48	3.7	2.13	6.0	3.34	9.3	5.01	160	160.15	160.40	4.0	4.9	6.2	7.7	9.5	11.8	14.6	
140	+0.4	1.8	1.21	2.8	1.84	4.1	2.65	6.7	4.18	10.4	6.27	200	200.15	200.40	4.9	6.2	7.7	9.6	11.9	14.7	18.2	
160	+0.4	1.8	1.39	3.2	2.41	4.7	3.44	7.7	5.47	11.9	8.17	225	225.15	225.50	5.5	6.9	8.6	10.8	13.4	16.6		
200	+0.4	1.8	1.74	4.0	3.70	5.9	5.37	9.6	8.51	14.9	12.8	250	250.15	250.60	6.2	7.7	9.6	11.9	14.8	18.4		
225	+0.5	1.8	1.96	4.5	470	6.6	6.76	10.8	10.8	16.7	16.1	315	315.15	315.70	7.7	9.7	12.1	15.0	18.7	23.2		
250	+0.5	2.0	2.40	4.9	565	7.3	8.31	11.9	13.2	18.6	19.9	355	355.15	355.70	8.7	10.9	13.6	16.9	21.1	26.1		
280	+0.6	2.3	3.11	5.5	711	8.2	10.40	13.40	16.60	20.8	24.9	400	400.15	400.80	9.8	12.3	15.3	19.1	23.7	29.4		
315	+0.6	205	3.78	6.2	9.02	9.2	13.2	15.40	20.9	23.4	31.5	500	500.15	501.00	12.3	15.3	19.1	23.9	29.7	36.8		
																			25.1	30.0		
400	+0.7	3.2	6.10	7.9	145	11.7	21.1	19.1	33.7	29.7	50.8	630	630.15	631.20	15.4	19.3	24.1	30.0				

### Polyethylen(PE)-PE 63,PE 80,PE 100,PE HD(wall thickness and mass).

Dimensions in millimetres

	Pipe series									
	SDR S		SDR S 1		SDR S 12		SDR S 1		SDR S 2	
			N	ominal	pressu	ıre,PN	<sup>a</sup> in bar			
PE40	-		PN	3,2	PN 2,5		-		-	
PE63	PN	16	PN	15	PN	14	PN:	3,2	PN:	2,5
PE80	-		PN	6 °	PN	15	PN	4	PN	3,2
PE100	-		PN	18	PN	6 °	PN	15	PN	14
Nom.				Wal	Ithick	cnesse	s b			
size	<sup>e</sup> min	<sup>e</sup> max	<sup>e</sup> min	<sup>e</sup> max	<sup>e</sup> min	<sup>e</sup> max	<sup>e</sup> min	<sup>e</sup> max	<sup>e</sup> min	<sup>e</sup> max
16	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-
32	2,0 <sup>d</sup>	2,3	-	-	-	-	-	-	-	-
40	2,3	2,7	2,0 <sup>d</sup>	2,3	-	-	-	-	-	-
50	2,9	3,3	2,4	2,8	2,0	2,3	-	-	-	-
63	3,6	4,1	3,0	3,4	2,5	2,9	-	-	-	-
75	4,3	4,9	3,6	4,1	2,9	3,3	-	-	-	-
160	9,1	10,2	7,7	8,6	6,2	7,0	-	-	-	-
180	10,2	11,4	8,6	9,6	6,9	7,7	-	-	-	-
200	11,4	12,7	9,6	10,7	7,7	8,6	-	-	-	-
225	12,8	14,2	10,8	12,0	8,6	9,6	-	-	-	-
250	14,2	15,8	11,9	13,2	9,6	10,7	-	-	-	-
280	15,9	17,6	13,4	14,9	10,7	11,9	-	-	-	-
315	17,9	19,8	15,0	16,6	12,1	13,5	9,7	10,8	7,7	8,6
355	20,1	22,3	16,9	18,7	13,6	15,1	10,9	12,1	8,7	9,7
400	22,7	25,1	19,1	21,2	15,3	17,0	12,3	13,7	9,8	10,9
450	25,5	28,2	21,5	23,8	17,2	19,1	13,8	15,3	11,0	12,2
500	28,3	31,3	23,9	26,4	19,1	21,2	15,3	17,0	12,3	13,7
560	31,7	35,0	26,7	29,5	21,4	23,7	17,2	19,1	13,7	15,2
630	35,7	39,4	30,0	33,1	24,1	26,7	19,3	21,4	15,4	17,1
710	40,2	44,4	33,9	37,4	27,2	30,1	21,8	24,1	17,4	19,3
800	45,3	50,0	38,1	42,1	30,6	33,8	24,5	27,1	19,6	21,7
900	51,0	56,2	42,9	47,3	34,4	38,3	27,6	30,5	22,0	24,3
1000	56,6	62,4	47,7	52,6	38,2	42,2	30,6	33,5	24,5	27,1
1200	-	-	57,2	63,1	45,9	50,6	36,7	40,5	29,4	32,5
1400	-	-	-	-	53,5	59,0	42,9	47,3	34,3	37,9
1600	-	-	-	-	61,2	67,5	49,0	54,0	39,2	43,3

a PN values are based on C=1,25.

d The calculated value of emin (ISO 4065[2]) is rounded up to the nearest value of either 2,0,2,3 or 3,0.This is to satisfy certain national

	, Difficultions in Hillimiteties											
						Pipes	eries					
	SDF S 2		SDR S 3		SDF S		SDR S		SDR 1 S 6		SDR S	
				N	ominal	pressu	ıre,PN	<sup>a</sup> in ba				
PE40	-		PN	10	PN	18	-		PN 5		PN 4	
PE63	-				-		PN	10	PN	8	-	
PE80	PN	1 25	PN	20	PN	16	PN 1	2,5	PN	10	PN	18
PE100	-		PN	25	PN	20	PN	16	PN 1	2,5	PN	10
Maria					Wal	Ithick	cnesse	es b				
Nom. size	e <sub>min</sub>	e max	e min	e max				e max	e <sub>min</sub>	e max	e <sub>min</sub>	e max
16	3,0°	3,4	2,3°	2,7	2,0°	2,3	-	-	-	_	-	-
20	3,4	3,9	3,0°	3,4	2,3	2,7	2,0°	2,3	_	-	_	_
25	4,2	4,8	2,5	4,0	3,0°	3,4	2,3	2,7	2,0°	2,3	-	-
32	5,4	6,1	4,4	5,0	3,6	4,1	3,0 °	3,4	2,4	2,8	2,0°	2,3
40	6,7	7,5	5,5	6,2	4,5	5,1	3,7	4,2	3,0	3,5	2,4	2,8
50	8,3	9,3	6,9	7,7	5,6	6,3	4,6	5,2	3,7	4,2	3,0	3,4
63	10,5	11,7	8,6	9,6	7,1	8,0	5,8	6,5	4,7	5,3	3,8	4,3
75	12,5	13,9	10,3	11,5	,8,4	9,4	6,8	7,6	5,6	6,3	4,5	5,1
90	15,0	16,7	12,3	13,7	10,1	11,3	8,2	9,2	6,7	7,5	5,4	6,1
110	18,3	20,3	15,1	16,8	12,3	13,7	10,0	11,1	8,1	9,1	6,6	7,4
125	20,8	23,0	17,1	19,0	14,0	15,6	11,4	12,7	9,2	10,3	7,4	8,3
140	23,3	25,8	19,2	21,3	15,7	17,4	12,7	14,1	10,3	11,5	8,3	9,3
160	26,6	29,4	21,9	24,2	17,9	19,8	14,6	16,2	11,8	13,1	9,5	10,6
180	29,9	33,0	24,6	27,2	20,1	22,3	16,4	18,2	13,3	14,8	10,7	11,9
200	33,2	36,7	27,4	30,3	22,4	24,8	18,2	20,2	14,7	16,3	11,9	13,2
225	37,4	41,3	30,8	34,0	25,2	27,9	20,5	22,7	16,6	18,4	13,4	14,9
250	41,5	45,8	34,2	37,8	27,9	30,8	22,7	25,1	18,4	20,4	14,8	16,4
280	46,5	51,3	38,3	42,3	31,3	34,6	25,4	28,1	20,6	22,8	16,6	18,4
315	52,3	57,7	43,1	47,6	35,2	38,9	28,6	31,6	23,2	25,7	18,7	20,7
355	59,0	65,0	48,5	53,5	39,7	43,8	32,2	35,6	26,1	28,9	21,1	23,4
400	-	-	54,7	60,3	44,7	49,3	36,3	40,1	29,4	32,5	23,7	26,2
450	-	-	61,5	67,8	50,3	55,5	40,9	45,1	33,1	36,6	26,7	29,5
500	-	-	-	-	55,8	61,5	45,4	50,1	36,8	40,6	29,7	32,8
560	-	-	-	-	-	-	50,8	56,0	41,2	45,5	33,2	36,7
630	-	-	-	-	-	-	57,2	63,1	46,3	51,1	37,4	41,3
710	-	-	-	-	-	-	-	-	52,2	57,6	42,1	46,5
800	-	-	-	-	-	-	-	-	58,8	64,8	47,4	52,3
900	-	-	-	-	-	-	-	-	-	-	53,3	58,8
1000	-	-	-	-	-	-	-	-	-	-	59,3	65,4
1200	-	-	-	-	-	-	-	-	-	-	-	-
1400	-	-	-	-	-	-	-	-	-	-	-	-
1600	-	-	-	-	-	-	-	-	-	-	-	-

a PN values are based on C=1,25.

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b Tolerances in accordance with grade V of ISO 11922-1:1997[1].

c Actual calculated values are 6,4 bar for PE100 and 6,3 bar for PE80.

b Tolerances in accordance with grade V of ISO 11922-1:1997[1].

c The calculated value of emin (ISO 4065[2]) is rounded up to the nearest value of either 2,0,2,3 or 3,0. This is to satisfy certain national requirements.

## LS-Mixer

### MAIN FEATURES

- High torque, super high efficiency permanent magnet synchronous motor is used in hot mixing, with high energy saving rate, large torque and high overload capacity.
- The hot mixing blades are made of wear-resistant material with long service life and good mixing effect.
- The comprehensive energy saving rate of the mixer is 10~20% compared with the conventional asynchronous motor drive.
- Large area of water ring cooling, forced internal cooling circulation system, high cooling efficiency.





### MAIN TECHNICAL PARAMETER

MODEL	MOTOR POWER FOR HOTMIXER (kw)	MOTOR POWER COOLING MIXER (kw)	CAPACITY PER BATCH (kg)	PRODUCTION CAPACITY PER HOUR kg/h
GRH300G/LH500	OG 50	7.5	125	800
GRH500G/LH150	00G 99	22	200	1700
GRH500G/LH200	00G 99	22	200	1700
GRH1000G/LH30	000G 180	37	400	2900

## LS-PVC

### Pelletizing Line

### MAIN FEATURES

- High output parallel twin screw extruder, specially designed screws for different PVC compound, even material mixing and plasticizing, especially suitable for handling with high-viscosity, complex formulations of the material to achieve high output and low energy consumption, low noise, no dust, uniform pelletizing.
- Equipped with "Hengpu" permanent magnet servo motor ,which has high-output and low energy consumption.
- Patented design water-cooling system, which is odorless, dust-free and long service life and maintenance-free, and the cooling efficiency has been significantly improved.
- Optional automatic jumbo bag packaging machine, automatic online weighing and bagging, reduce labor work and improving efficiency.









AUTOMATIC JUMBO BAG PACKAGING MACHINE

WATER-COOLING SYSTEM

HOT FACE CUTTING PELLETIZING

EXTRUDER

### MAIN TECHNICAL PARAMETER

MODEL	OUTPUT (kg/h)	TOTAL INSTALLED POWER (kw)	EXTRUDER	PELLETIZING TYPE
LSE-65PVC	320	88	LSE-65	Hot-face cutting
LSE-80PVC	550	170	LSE-80	Hot-face cutting
LSE-92PVC	850	250	LSE-92	Hot-face cutting

# LS-PE/PPR

### Granulating production line

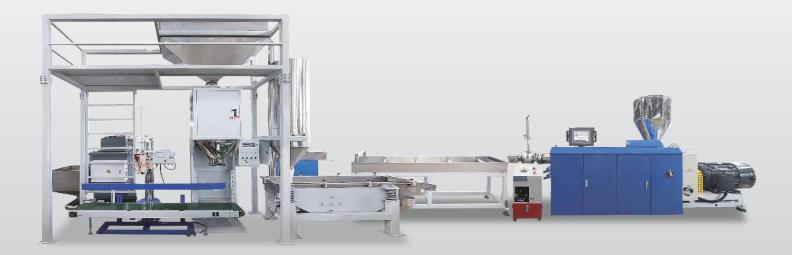
### **MAIN FEATURES**

- Large L/D ratio screw design, high output, good energy saving effect
- Configuration of double station filter structure
- The die head is simple in structure and easy to clean
- Optional online separate bag filling mechanism









SEWING TYPE PACKING

STORAGE HOPPER

COOLING WATER TANK

DIE HEAD

EXTRUDER

### MAIN TECHNICAL PARAMETER

MODEL	OUTPUT (kg/h)	GRANULE SIZE	TOTAL INSTALLED POWER (kw)	EXTRUDER	PELLETIZING TYPE
LSZL-80PE	420	Ø3	170	LSE-80-34	Cool cutting
LSZL-100PE	600	Ø3	270	LSS-100-34	Cool cutting

### LSZS Compound Pelletizing

### **MAIN FEATURES**

- Adopts larger L/D co-rotating parallel twin screw extruder, wear-resistant and corrosion-resistant barrel, ensure high production while low melting temperature and excellent plasticizing performance.
- Multiple loss-in-weight feeders are used to dose and mix main materials, recycled materials, and color powder online, supporting online color change, fast recipe change, and flexible production.
- Customized ultra-high-efficiency permanent magnet synchronous motor for extrusion to increase production capacity and reduce energy consumption.
- Automatic online packaging, simple and convenient operation.









C series: 6-9Nm/cm³							
Туре	L/D ratio	Screw speed(rpm)	Motor power (kw)	Throughput (kg/h)	Range of application		
LSZS-52	40-52	600	75	200-300	PP PE TPE		
LSZS-63	40-52	600	132	300-400	TPR ABS PC		
LSZS-72	40-52	600	160	400-600			

M series: 11-15Nm/cm³							
Туре	L/D ratio	Screw speed(rpm)	Motor power (kw)	Throughput (kg/h)	Range of application		
LSZS-50	40-52	600/900	110/160	300-400	ABS PC TPU		
LSZS-58	40-52	600/900	160/250	500-600	PA PBT PET PPS		
LSZS-75	40-52	600/900	315/475	800-1000	PPA LCP PEEK PMMA		

## **On-Line**

### Bundling & Bagging Machine

### MAIN FEATURES

- Compact design, less occupies;
- When changing size the adjustment is simple and fast, humannized design;
- Stretch film and packing bag easy to replace;
- Reliable alarm system on the shortage of strech films and packing bag;
- Smart and reliable bundling way.
- Bundling and baging wrapped simultaneously structure simple.
- Bundling and baging adopted Servo control, fast and stable.
- Storage stacker with detect fuction of pipe storage
- Open structure of storage stacker, tube automatic arraying neatly after cutting;

### **AVAILABLE RANGE**

- PVC、PPR straight pipe.
- It can be matched with single pipe, double pipe and four pipe extrusion line.
- Be able to meet the requirement of 20m/min online packing.
- Suitable for plastic film, woven bag and other bagging&packing material.

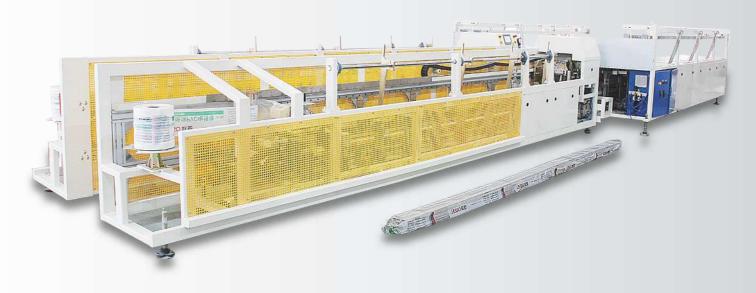


### **ONLINE PACKING-CONDUIT**



Various packing methods for all kinds of pipes, such as PE bag packing, woven bag sewing&packing, winding&packing, etc., have completed comprehensive serialization, mass production and sales.

### TRUNKING BUNDLING, BAGGING & PACKING MACHINE





■ Wire slot series strapping packing machine online

### ONLINE FILM STRAPPING MECHANISM FOR PIPES





### Automatic Meter-weight Stacker for Plastic Pipe

- Body dimension: 6000\*667\*1260 (L \* W \* H), compact size .
- The qualified pipe is automatically lifted and stacked to the material cage after cutting.
- Online real-time monitoring of the weight of each pipe, and automatically eliminate the unqualified weight of the pipe.
- Automatically count the qualified and unqualified quantity and weight of pipe
- IPC with 17 inch color touch screen is optional to realize data acquisition and data analysis (IPC) of the whole line.











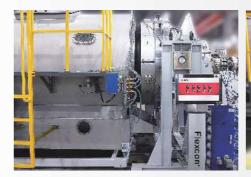
### Flexibility control system

### FLEXCON\*

Flexible control system integrating extrusion equipment control and production data acquisition and analysis can select data in real-time or user-defined time period for Equipment utilization. Capacity analysis. Energy consumption analysis. Alarm monitoring. Equipment maintenance.

Production data:

Present data analysis in the form of graphs and tables, so as to directly monitor the use status of the equipment.













### **IOT System solution**

Liansu IoT data collection and analysis system is an industrial data collection, transmission, storage, analysis and visualization platform based on IoT technology. It can seamlessly connect your plastic extrusion production line, material handling system and auxiliary equipment, collect equipment operation data, production data, energy consumption data, etc. in real time, and provide data support for your equipment status monitoring, production efficiency analysis, fault prediction and early warning, energy management optimization and other all-round decision-making services through a powerful data analysis engine, helping you realize the digitalization, networking and intelligence of the production process.

#### Real-time data collection and equipment monitoring

- Through sensors and edge computing devices, key data such as equipment operating status, temperature, pressure, energy consumption, etc. are collected in real time.
- Provide a visual dashboard to monitor equipment operation in real time to ensure transparency and controllability of the production process.

#### Equipment health management

- Provide equipment maintenance plans and reminders to extend equipment life and reduce maintenance costs.
- Analyze equipment operation data, predict potential failures, issue early warnings, and reduce downtime.

#### Production management and efficiency improvement

■ Real-time collection of production data, equipment status, etc., follow up on production progress, analyze equipment utilization, optimize equipment operating parameters, and improve production efficiency.



#### Quality management and analysis

■ Real-time collection of parameter data related to product quality during the production process and analysis to help you promptly identify quality problems, trace the root causes of problems, optimize production processes, and improve product quality.

#### Energy consumption management and environmental optimization

- Real-time monitoring of equipment energy consumption, identification of high energy consumption links, and providing data basis for energy saving and cost reduction.
- Support environmental data collection to help customers achieve green production and reduce carbon emissions.

#### Data visualization dashboard

■ Provide an intuitive and easy-to-understand data dashboard to monitor equipment operating status, production progress, maintenance reminders, energy consumption, etc. in real time, so that you can see the production situation at a glance.

