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## BRIEF HISTORY

<b>1978</b>	- Established
<b>1985</b>	- Developed Strand Pelletizing System (HJCV3/HJCV6 system)
<b>1995</b>	- Developed HJCV9/HJCH9 System
<b>1999</b>	- Acquired ISO 9001 Certificate
<b>2001</b>	- Developed HJCV10/HJCH10 System
<b>2012</b>	- Developed HJCV12 System

## REFERENCE

More than 500 Pelletizing Systems over the world

## POLYMERS

PET, PBT  
PS, GPPS, HIPS, SAN, ABS  
PMMA  
PC  
PA6, PA66  
Engineering Plastics  
Other Special Plastics

## CLIENTS

### ■ Korea

LG Chem, Cheil Industries, SKC, SK Chemicals, KOLON, Samyang, Huvis, DuPont, Lotte Chemical, Styrolution Korea, Arkema Korea, Rhodia Korea, Hyundai EP, Toray Advanced Materials Korea, Kumho Petrochemical, Taekwang Industrial, Daehan Synthetic Fiber, Woongjin Chemical

### ■ China

Ningbo LG Yongxing Chemical, LG Chem(GZ) Engineering Plastics, Huvis Sichuan, Panjin Liaohe Chemicals, Zhejiang Cifu Chemical Fibre, Zhejiang Tongkun Group, Yangji-BASF Styrenics Company, Zhejiang GPPC Plastic, Yihua Toray Polyester Film, Petrochina Jilin Petrochemical Company, CNPC T&D Daqing Company, CNOOC & LG Petrochemicals,

### ■ Japan

The Japan Steel Works, Daicel Chemical Industries, DENKA, Kobe Steel, Sekisui Plastics, Teijin Chemicals Plastic Compounds, Sanko Air Plant

### ■ India

Styrolution India Pvt., Elque Polyesters, LG Polymer India Pvt., Supreme Petrochem, Modern Petrofils

### ■ Thailand

Eternal Plastics, HMT Polystyrene, Tuntex Public Company

### ■ Others

Ghaed Bassir Petrochemical Products(Iran), Indorama Ventures Indonesia(Indonesia), MAFISSA(Argentina), Noyvallesina Engineering(Italy)



# ROTARY CUTTER / BED KNIFE / FEED ROLLER

## PTA & CNC Grinding



- PTA(Plasma Transferred Arc) Welding for Stellite Tip
  - Easily Repairable
  - Uniform Quality Assured
- CNC Grinding Service
  - Uniform Quality Assured
  - Quick Delivery

## Rotary Cutter



- Various Rotary Cutters
  - Hardened Steel and Stellite
- Tungsten Carbide Insert Blade
  - Special Reinforced Additive Plastic

## Bed Knife



- Various Bed Knives
  - Ferro Titanium, Ceramic and Tungsten Carbide
- 4 Usable Cutting Edges
- Excellent Wear Resistance / Erosion Resistance
- Special Fixing Bolt Design (Ceramic)

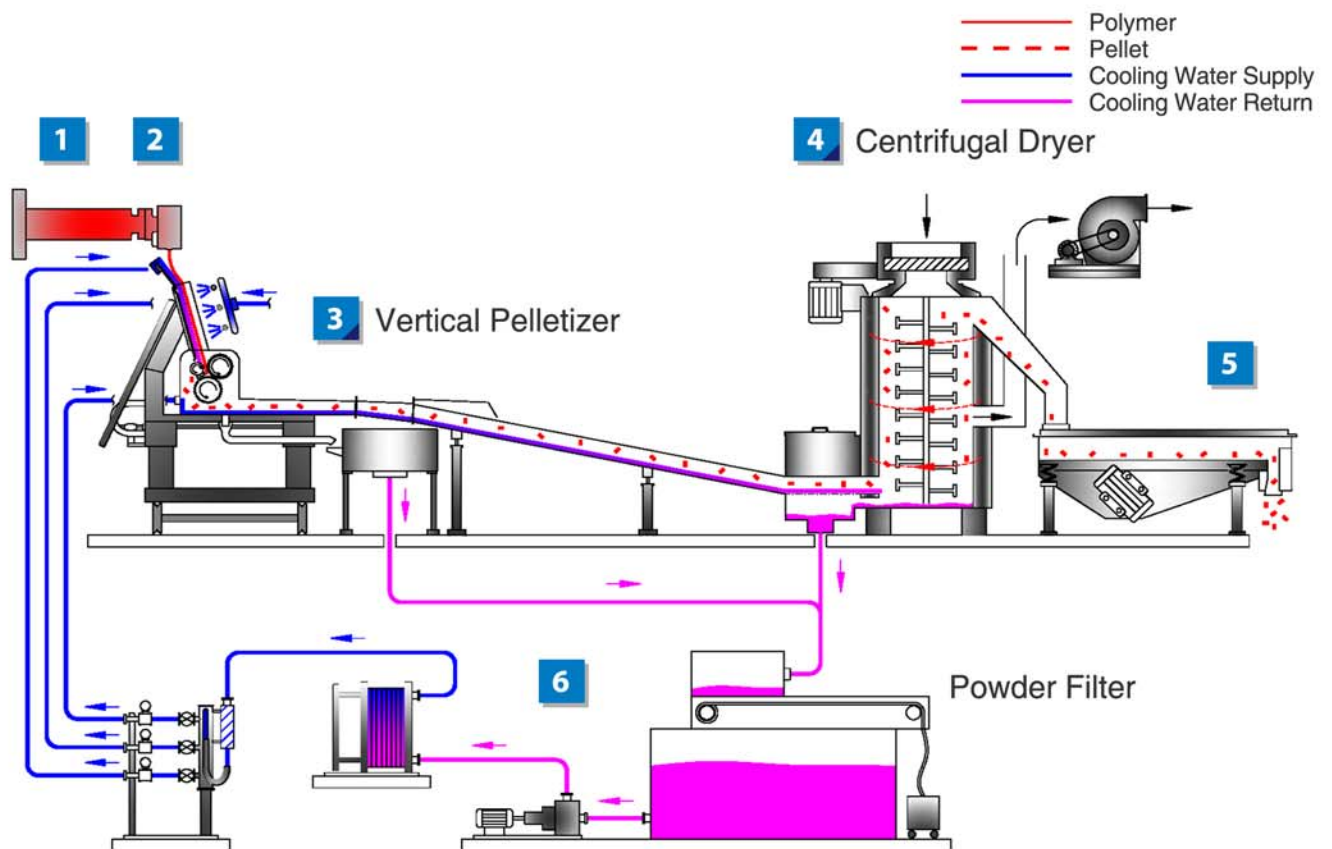
## Feed Roller



- Various Feed Rollers
  - Knurling, Grooved and Smooth Surface
- Wear Resistance
  - Tungsten Carbide Ring Insert of Rear Roller
  - Tungsten Carbide Coating of Front Roller

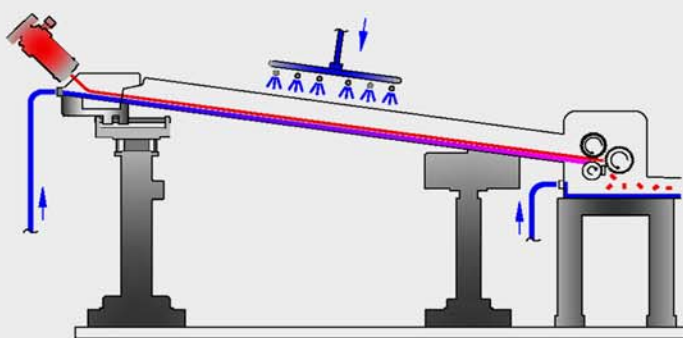


## UNDERWATER STRAND PELLETIZING SYSTEM

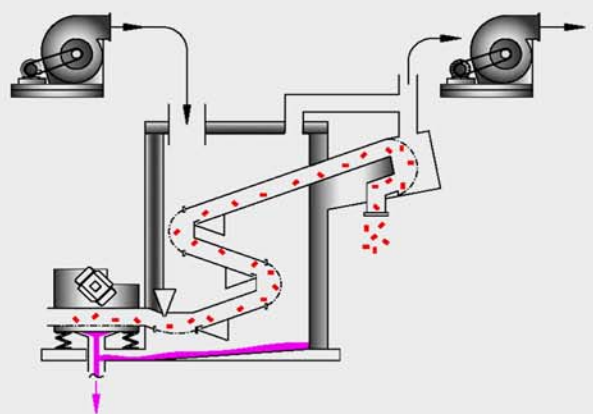


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### 3 Horizontal Pelletizer



#### 4 Air Blowing Dryer

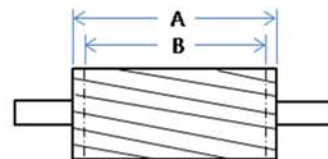


- 1 Polymer Piece
- 2 Die Head
- 3 Pelletizer
- 4 Dryer
- 5 Vibrating Screen
- 6 Cooling Water Circulation System



# TECHNICAL SPECIFICATION

## HJCV-Vertical Systems



MODEL		HJCV-1	HJCV-2	HJCV-3	HJCV-6	HJCV-9	HJCV-10	HJCV-12
Cutter width (mm) (A)	(A)	160	250	350	680	952	1,042	1,180
/ Operating width (mm) (B)	(B)	100	200	300	600	900	1,012	1,140
Power of pelletizer motors (kW)		5.5	7.5	11(15)	22+2.2+2.2	30+3.7+3.7	37+3.7+3.7	37+3.7+3.7
Line speed (mpm)		60 – 270						
Number of strands (depending on pellet weight, size and material)		12~24	12~44	33~66	66~132	98~206	112~226	124~248
Cooling length (depending on material)		1,500 ~ 6,500 mm						
Water consumption (m <sup>3</sup> /hr)		8	15	20	35	50	60	70
Throughput rate (kg/hr)								
Product	Throughput (Pellet dimensions (mm), dia. Ø3 x 3 long)							
PET		1,400	2,400	3,900	7,900	11,800	13,400	14,800
PA6.6		1,180	2,000	3,200	6,500	9,800	11,000	12,200
GPPS, HIPS, SAN, ABS		1,400	2,700	4,000	8,000	11,800	13,000	15,300
PMMA		900	1,800	2,800	5,700	8,600	9,500	10,300

## HJCH-Horizontal Systems

MODEL		HJCH-1	HJCH-2	HJCH-3	HJCH-6	HJCH-8	HJCH-9	HJCH-12
Cutter width (mm) (A)	(A)	160	250	350	680	820	952	1,180
/ Operating width (mm) (B)	(B)	100	200	300	600	800	900	1,140
Power of pelletizer motors (kW)		5.5	7.5	11(15)	22	30+3.7+3.7	37+3.7+3.7	37+3.7+3.7
Line speed (mpm)		60 – 270						
Number of strands (depending on pellet weight, size and material)		10~16	16~20	30~40	60~80	80~100	100~120	120~152
Cooling length (depending on material)		1,500 ~ 6,500 mm						
Water consumption (m <sup>3</sup> /hr)		8	15	20	35	40	60	70
Throughput rate (kg/hr)								
Product	Throughput (Pellet dimensions (mm), dia. Ø3 x 3 long)							
PET, PBT		1,500	3,000	4,500	9,000	10,500	13,500	18,000
PA6.6		1,200	2,900	3,600	7,200	9,600	12,000	14,400
PA6 (dia. Ø2.5 x 2.5 mm long)		570	710	1,700	3,400	4,600	5,700	6,800
PC		900	1,400	1,400	2,600	5,300	8,900	10,500

## 1 Polymer Piece



Electric Casting Heating



HTM(Vapor or Liquid) Heating

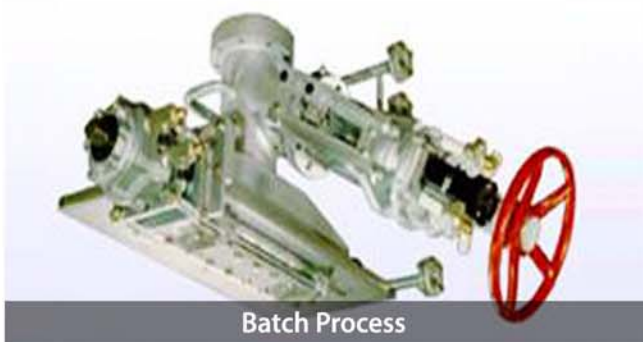
- Highly Custom-Engineered Product between Die Head and Upstream Equipment such as Extruder and Screen Changer
  - Customized Sizes, Shapes(Straight or Elbow)
  - Electric Casting Heating
  - HTM Heating
  - Flanged or Welded Connection
- No-Stagnation of Polymer Flow
- Less Pressure Drop Design
- Polymer Pressure Sensor / Temperature Sensor

## POLYMER PIECE

## 2 Die Head



Continuous Process



Batch Process

- No-Stagnation of Polymer Flow by Uniform Distribution Design of Cavity and Nozzle
- Minimized Die-Swelling Causing Strand Sticking by Precise Roughness of Nozzle Hole
- Maximized Nozzle Hole Array
- Simple and Space-Saving Compact Design
- Easy Maintenance for Changing and Cleaning of Nozzle Plate
- Polymer Pressure Sensor / Temperature Sensor
- HTM / Electric Casting Heating

## DIE HEAD





### 3 Pelletizer



HJCV - Vertical



HJCH - Horizontal

- Various Models
  - Refer to Technical Specification Table
- Configuration
  - Start Up Flap, Strand Guide, Cutting Chamber, Motors, Movable Frame
- Easy Replacement of Cutting Chamber
- Easy Replacement of Rotary Cutter, Bed Knife and Feed Rollers
- Quick Change of Stand-By Pelletizer
- Safe and Operator-friendly Structure
- Automatic Pellet Length Adjustment
- Space-Saving Compact Design

# PELLETIZER

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## 4 Dryer



Centrifugal Dryer

- High Capacity Drying Efficiency
- Low Power Assumption
- Low Water Content Guarantee
- Low Noise
- Easy Maintenance and Cleaning
- Space-Saving Compact Design
- Punching Perforated Screen
- Pre-Dewatering Equipment
- Exhaust Fan
- Driven Motor

DRYER

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Air Blowing Dryer

- Conventional Drying System
- Easy Maintenance
- Punching Perforated or Steel Bar Screen
- Pre-Dewatering Vibrator
- Supply Blower
- Exhaust Fan

DRYER





## 5 Vibrating Screen



Vibrating Screen

- Proven Quality and Reliability Combined with Dryer
- Double Deck Screen Area for Removing Off-Sized Pellets or Powder
- Individual Separation Outlets
  - Oversized, Normal, Powder
- Exchangeable and Customized Screens for Various Pellet Sizes
- Perforated Screen
- Special Vibration Motors

# VIBRATING SCREEN

## 6 Cooling Water Circulation System

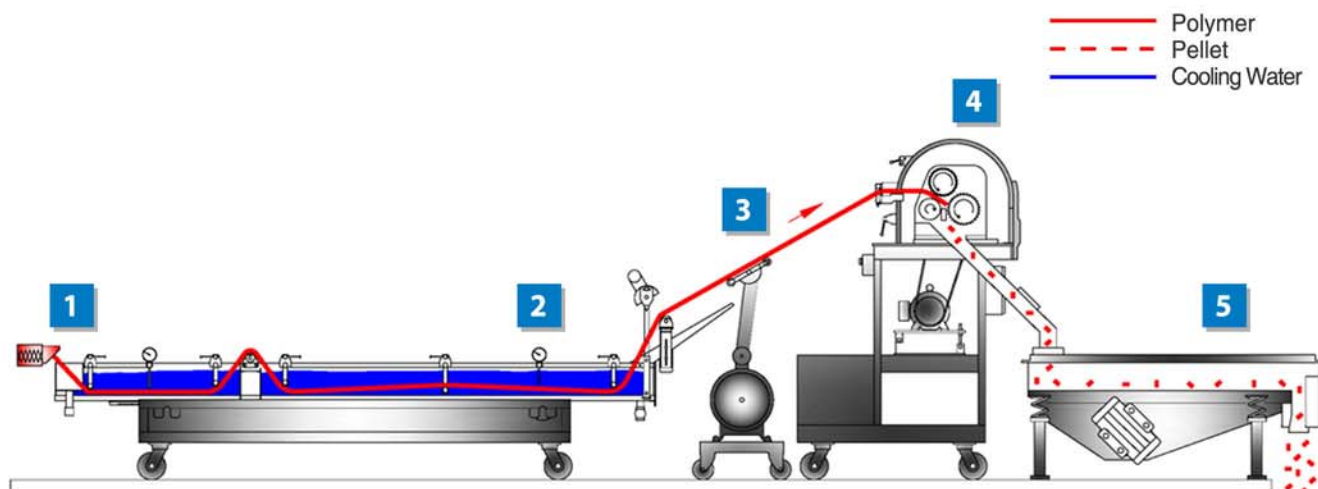


Cooling Water Circulation System

- Cooling Water Circulation and Powder Filtering
- Configuration
  - Powder Separator, Water Tank, Water Level Gauge, Water Pump, Heat Exchanger
- Non-Woven Filter for Powder Filtering
- Automatic Filtering by Time Adjustment

# COOLING WATER CIRCULATION SYSTEM

## CONVENTIONAL PELLETIZING SYSTEM



**1** Die Head

**2** Cooling Water Bath

**3** Air Wiper

**4** Pelletizer

**5** Vibrating Screen

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## Technical Specification

MODEL	HJCD-75	HJCD-100	HJCD-200	HJCD-300	HJCD-450	HJCD-600	HJCD-800
Operating width (mm)	75	100	200	300	450	600	800
Power of pelletizer motors (kW)	1.5	2.2	7.5	11(15)	15(22)	22	30
Line speed (mpm)	Frequency controlled AC motor / inverter						
Number of strands (Ø3 x 3)	4	10	30	40(50)	50(70)	80(120)	120(150)
Length of Cooling bath (depending on product and throughput rate)	1.5 - 7						
Throughput rate (kg/hr)							
Product	Pellet dimensions (mm), dia. Ø3 x 3 long						
PP, PE	135	500	1,030	1,370		2,740	4,120
PA 11, P 12	150	500	1,140	1,520		3,050	4,580
PMMA, GPPS, SAN, ASA	160	600	1,200	1,600		3,200	4,800
HIPS, ABS	160	600	1,200	1,600		3,200	4,800
PA6 (dia. Ø2.5 x 2.5 mm long)	170	600	1,280	2,040		4,310	5,830
PA6.6	156	600	1,180	1,580		2,800	3,950
PET, PBT	163	600	1,230	1,640		2,930	4,120
PC					2,500		
PET, PBT, PA6.6, PA6 + 15~50% glass fiber	158	600	1,190	1,480		2,380	2,970





## 1 Die Head



Die Head

- Customized Compact Design
- Electric Casting Heating
- Maximized Nozzle Hole Array
- Polymer Temperature / Pressure Sensor
- Prevention of Strand Sticking

## 2 Cooling Water Bath



Cooling Water Bath

- Customized Compact Design
- Cooling Water Circulation with Heat Exchanger and Pump
- Adjustable Strand Guide Rollers according to Polymer
- Movable Frame

## 3 Air Wiper



Air Wiper

- Suction and Blowing Air Nozzle Array for Removing Water
- Adjustable Air Nozzle Angle for High Drying Efficiency
- Water Drain Tank and Strainer
- Ring Blower with Motor
- Movable Frame

## 4 Pelletizer



Pelletizer

- Quick Maintenance, Adjustment and Easy Cleaning
- Safety Design of Strand Inlet Chute
- Bearing Housing Outside of Cutting Chamber for Preventing Product Contamination and Ensuring Easy Maintenance
- Anti-Fly Back Plate Inside of Cutting Chamber for Preventing Pellet Double Cutting





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