



Coperion Pelletizing Technology. For demanding tasks - powerful, reliable, precise.

»» We offer a full scope of suitable components to cover the entire process from melt to pellet. Our specialty is the design and implementation of complete strand pelletizing plants, along with the engineering and the fabrication of tailor-made special solutions. Due to the modular design and the easily changeable connections, the individual components can be easily integrated into existing production lines.

Coperion Pelletizing Technology is a specialized machinery company focusing its product program on strand pelletizing technology. This technology is used for the conversion of molten polymer strands into dry and easy to handle (cylindrical) plastic pellets. The equipment covers the process steps of cooling, drying, pelletizing and classifying. The machines are available in various sizes, covering all throughput ranges from 2 kg/h up to 6,300 kg/h. In addition, Coperion Pelletizing Technology also offers centric pelletizers especially for the food and pharma industry.

By the skillful integration of innovative solutions and reliable elements Coperion Pelletizing Technology has created a machine

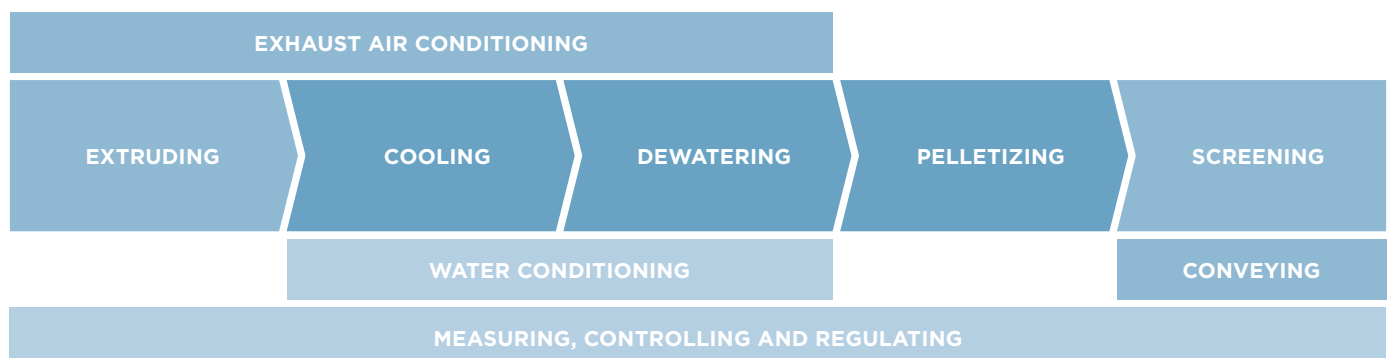
program that satisfies even the most demanding expectations. Special emphasis is given to the indispensable basic features you can expect from a Coperion Pelletizing Technology machine allowing a tailor-made configuration to meet individual requirements.

During decades of working with this technology Coperion Pelletizing Technology has gained extensive know-how, derived from countless projects with well-known companies all around the world. This is the knowledge base on which customer requirements are transformed into proven technical solutions, covering the entire process steps from the melt to the sifted pellets.

ADVANTAGES

- › Best pellet quality and extended uptime
- › High utilization and high throughput
- › Easy operating and quick cleaning
- › Wide range of wear protection solutions
- › Noise insulation for low noise emission
- › Variable adjustment of pellet length (from micro pellets to long fiber pellets)
- › Operating side right or left (true mirror image execution)
- › Tailor-made designs

SCOPE OF PRODUCTS





**STRAND COOLING TROUGH
TYPE CT**

The strand cooling trough contains process water to cool the strands while passing through the trough. The transferred heat energy increases the temperature of the process water. The strands are guided by several rotating strand guide rolls and process water is supplied at the inlet and leaves via the return. The number of strands and the cooling length are individually adapted to your product. Strand guide rolls are available in different materials.

Features & Advantages

- › Base frame powder coated
- › Moveable on castors
- › Water flow with strand flow
- › Large overflow/coarse sieve
- › Separate drain for emptying
- › Shut-off valves included

Technical Data

- › Length to 25,000 mm
- › Width to 1,000 mm



**STRAND CONVEYANCE
TYPE SC**

The strand conveyance type SC excels in its reliable strand transport with fragile and brittle products. For water soluble products we offer a waterless air cooling solution. The conveying belt is available in textile fabric stainless steel wire mesh.

Features & Advantages

- › Belt made from heat resistant fabric or wire mesh
- › Air cooling by compressed air or radial fan(s)
- › Supports and guides brittle and fragile strands
- › Imperative for water soluble or corrosion vulnerable products
- › Special features like water cooling available on demand

Technical Data

- › Length to 12,000 mm
- › Width to 600 mm



**PROCESS WATER CIRCULATION
TYPE PWK**

The heated process water from the strand cooling trough flows into a buffer tank which is an optional item. A pump aspirates the process water and presses it through a filter cartridge and a heat exchanger back into the cooling trough. At the heat exchanger, the process water is cooled back to the required temperature by means of chilled water. The construction of the process water circulation type PWK is very robust, and easy to clean. Product contacting process water is totally separated from the conditioned chilled water.

Features & Advantages

- › Smaller sizes integrated into the base frame of a strand cooling trough
- › High efficiency plate heat exchanger
- › Powerful centrifugal pump
- › Optional with automated temperature control

Technical Data

- › Water amount up to 65 m³/h
- › Cooling power to 1,400 kW



AIR WIPE TYPE AW

Within the strand dewatering process the extruded and cooled strands are guided through the air wipe type AW. Compressed air creates a high air velocity stream against the strand flow direction. This air stream wipes off the water clinging to the strand surface. The separated water drops back into the cooling trough underneath the unit.

Features & Advantages

- › Compact design can be installed directly onto the cooling trough
- › Efficient dewatering, low investment costs
- › No electrical power needed
- › Low noise generation

Technical Data

- › Working width 51, 70, 140 and 200 mm



AIR SUCTION DEVICE TYPE SD EASY & SD MINI/MIDI/MAXI

The extruded and cooled plastic strands are guided by rolls and pass over a split sieve. A pressure fan creates a high air velocity stream at the split sieve which rips off the water clinging to the strand surface. The air passes the fan and leaves the expansion compartment to the ambient with low velocity via the lower surface. The fan and the dewatering compartment are housed with a noise enclosure for the mini, midi and maxi series.

Features & Advantages

- › Versatile usage, installation behind or also alongside cooling trough
- › Tilting and height adjustable suction box can be easily adapted to the strand flow
- › Suction system that collects removed water by means of high air velocity, even with rough strands
- › Compact design
- › Wide opening for trouble-free strand passage
- › Low noise generation or efficient noise insulation

Technical data

- › Working width ranging from 70 mm up to 1,200 mm



STRAND PELLETIZERS FOR COMPLETE COMPOUNDING PLANTS

Our strand pelletizing equipment is designed to perfectly fit to Coperion's compounding technology. Coperion provides total compounding solutions from a single source in which the pelletizing process is optimally integrated into the compounding process.

Within the strand pelletizing process the extruded, cooled and dried plastic strands are taken into the strand inlet. The strands are caught by feed rolls and transported to the cutting section. The upper feed roll is pressured. The cutting section

consists out of a stationary bed knife and a rotating cutting rotor. Between the edges of the bed knife and the cutting rotor, the plastic strands are cut into regular, cylindrical pellets.



**STRAND PELLETIZER
TYPE SP EN/PURE**

Features & Advantages

- › Cantilevered bearing design, for easy access and quick cleaning
- › Rugged housing for sturdy cutting gap and high cutting quality over the whole working width
- › Vibration insulation
- › Simple and robust functions for long-time operation
- › With many useful options: pellet length regulation, driven upper feed roll, cutting head cooling, transfer signal to extruder control, custom design base frame

Technical Data

- › Working width 50, 100 and 150 mm
- › Throughput 30 to 1,000 kg/h



**STRAND PELLETIZER
TYPE SP EASY/SP U**

Features & Advantages

- › Dual side bearing design for highest cutting gap durability even under highest work load
- › Improved, toolless cutting gap adjustment device
- › Easy accessibility and quick cleaning due to design features: opening of the cutting head cover gives full access to the interior, stripper blade can easily be swiveled out without additional tools, the pellet outlet is easily accessible, all inside surfaces are flat and smooth in order to avoid the accumulation of residues
- › Vibration insulation
- › Noise insulation with integrated safety features
- › With many useful options: pellet length regulation, driven upper feed roll, cutting head cooling, transfer signal to extruder controls, custom design base frame

Technical Data

- › Working width 140, 240 and 340 mm
- › Throughput up to 3,000 kg/h



**STRAND PELLETIZER
TYPE SP 500 HD/SP 700 HD**

Features & Advantages

- › Dual side bearing design for highest cutting gap durability even under highest work load
- › Suitable for the production of highly filled/reinforced and long fiber reinforced engineering polymers
- › Safety interlock with trapped key system
- › Axial fan with high air volume integrated into the base frame, for drive motor and cutting head cooling
- › Complete cutting head is exchangeable by removing one coupling and four bolts
- › Easy accessibility and quick cleaning
- › Many useful options available, such as pellet length regulation, driven upper feed roll, cutting head cooling, transfer signal to extruder controls, custom design base frame

Technical Data

- › Working width 500 and 700 mm
- › Throughput 3,000 to 6,300 kg/h



**CENTRIC PELLETIZER
TYPE ZGF**

The ZGF Centric Pelletizer has been used successfully for many years for the production of directly expanded food stuffs such as cereals, aquatic feed or petfood. It is also used for the production of extruded products in the chemical industry and for pharmaceutical applications.

Features & Advantages

- › High product quality due to constantly even contact of the knife with the die plate
- › Length of the pellets produced can be influenced easily by the number of knives and by the speed of the knife rotor
- › Quick release connections
- › Easy access for cleaning the screws, mounting the die plate and quick change over of the die plate
- › Safety device ensures that the pelletizer hood does not open until the motor is at a standstill

Technical Data

- › Sizes 30, 70 and 125
- › Throughput up to 15 t/h



**VIBRATING SCREEN
TYPE VS**

Within the vibrating process a screen trough is vibrating by means of an oscillator device. The applied product ripples along that trough assisted by inclination and vibration. In the bottom of the trough are holes (two hole sizes), which separate the product into three fractions.

Features & Advantages

- › Easy access and quick cleaning
- › Options: cover for the screen, vibration regulation, integrated magnetic separator
- › Flexible design

Technical data

- › Working width 150, 300 and 400 mm
- › Throughput up to 750 kg/h



**COMPREHENSIVE KNOW-HOW FOR
FIRST-CLASS PRODUCT QUALITY**

Size and function of each single component is individually configured to your product's needs to ensure best product quality. Our systems cover a throughput range from 2 kg/h to 6,300 kg/h.



STRAND CONVEYING TYPE SCP

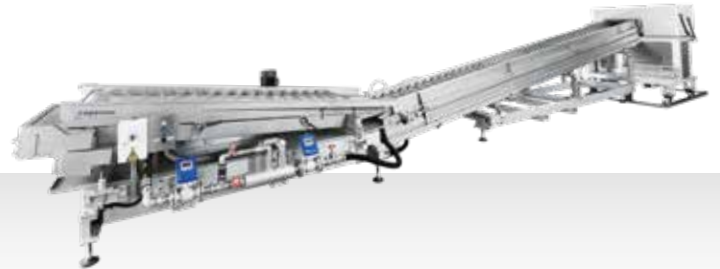
The extruded plastics strands drop onto a water flooded and sprayed chute. Gravity and water flow drive the strands down towards the chute and cools their surface. Multiple conveying belts at the end of the chute are used for further cooling and for drying the strands by means of a high velocity air stream. The strands are directly guided to the intake of a strand pelletizer.

Features & Advantages

- › Simple start-up due to automatized strand conveyance
- › Better yield due to self-lacing of broken strands
- › Flexible due to adjustable cooling section
- › Low residual moisture by integrated strand dewatering
- › Options available: Automatic temperature control and water preheating

Technical data

- › Working width: 170, 270, 370 and 470 mm
- › Throughput up to 2,000 kg/h



AUTOMATIC STRAND CONVEYING SYSTEM TYPE ASC

The conveying system automatically guides the extruded strands via a cooling water chute and downstream conveyor belt into the feed mechanism of the pelletizer. A likewise automatic start-up mechanism facilitates the start-up operation, while any possible machine malfunctions caused by broken strands are avoided by the system's ability to rethread the strands.

Features & Advantages

- › Reduced complexity of the system and low rate of wear
- › Specially developed die head ensures completely uniform extrusion of the strands across the entire width of the extrusion die
- › The modular design permits flexible and rapid adaptation to the requirements of the process
- › Wide operating flexibility due to adjustable cooling length
- › Strand pelletizing ensures an extremely gentle treatment of the product, as it operates with much lower pressures

Technical data

- › Working width 570 mm and 930 mm (chute)
- › Throughput up to 6 t/h

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