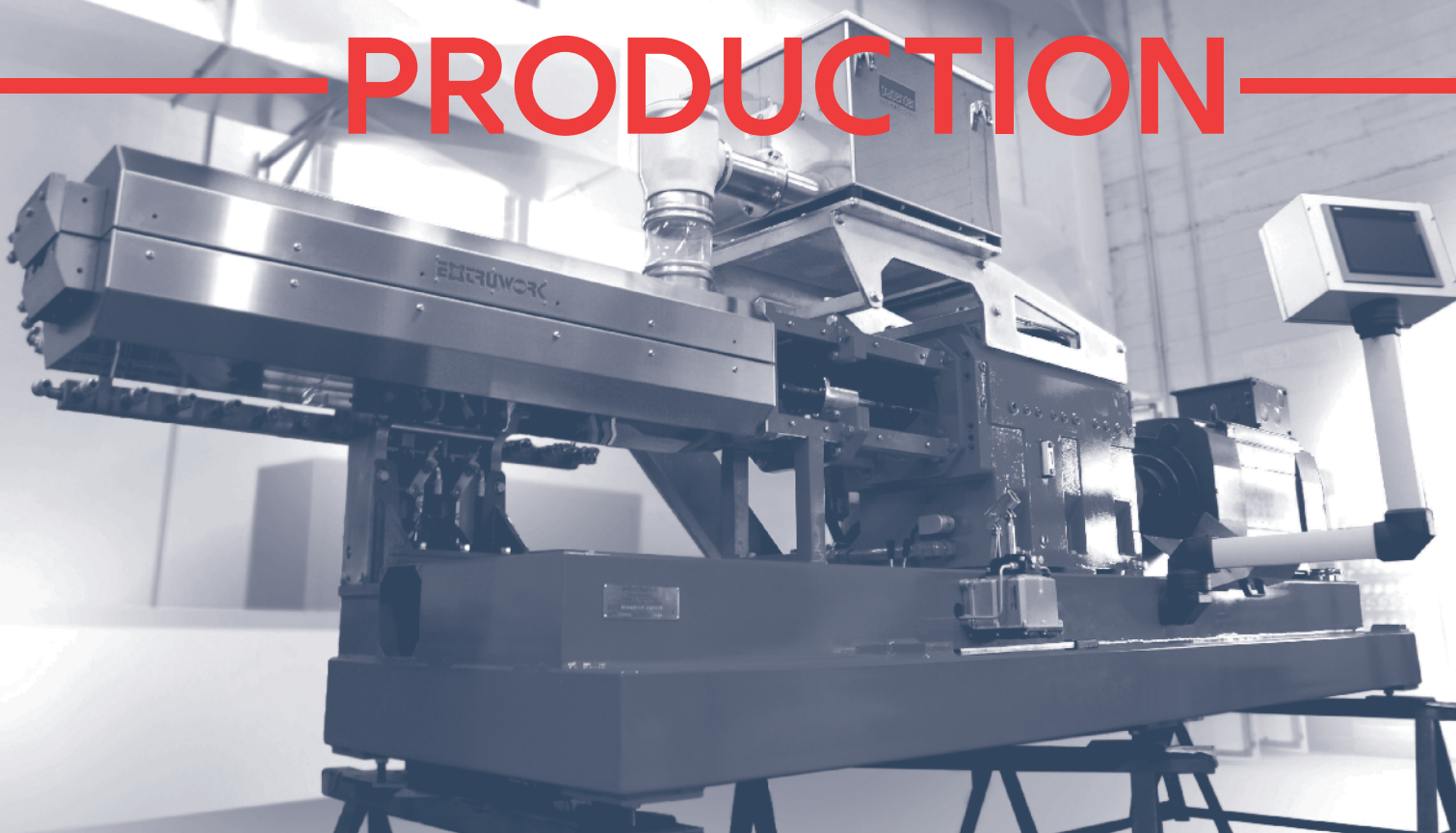




We have unparalleled experience in producing and supplying steel belt cooling systems, meeting the production, quality and environmental needs of customers from across the chemical and food industries.

ipco.com

—EXTRUSION—AND —COOLING—SYSTEMS— —POWDER—PAINT —PRODUCTION—



— FLEXIBLE PRODUCTION SYSTEMS BASED ON MARKET- LEADING TECHNOLOGIES

As a major supplier of steel belt cooling systems since the early part of the 20th century, we have unparalleled experience in meeting the production, quality and environmental needs of customers from across the chemical and food industries.

Twin screw extrusion machine.



The inherent reliability and productivity of our cooling and processing systems has also seen them used in powder coating production for many years, and we have developed close working relationships with many of the world's leading producers.

Easy cleaning and rapid switchover between products with minimal loss of production.

Complementing this, we are also able to offer a range of advanced twin screw extrusion systems, enabling us to design and deliver integrated powder paint production lines, covering everything from feeding and extrusion to cooling and downstream handling:

- High productivity systems with market-proven reliability.
- Innovative, flexible design.
- Efficient, environmentally friendly operation – low energy consumption.
- Easy cleaning and rapid switchover between products with minimal loss of production (change from one color to another in 12 minutes).
- High quality, long-lasting components.
- Worldwide sales / after-sales support including spare parts.
- In-house test laboratory and pilot line for trial purpose.
- Technical support for resolution of quality issues.
- Excellent price/quality ratio for attractive ROI.

Meeting increasing global demand for environmentally friendly powder paint

The market for powder coatings is rapidly expanding as environmental concerns drive a reduction in the use of the volatile organic compounds (VOCs) commonly used in liquid paints. With no VOCs, virtually no atmospheric pollution, safe storage and handling, and low fire hazard, powder paints provide a clean and attractive alternative.

Innovative, reliable and high-performance production systems focused on flexibility and low energy consumption.



High performance extrusion, cooling and flaking systems

Volumetric feeder

This versatile unit can be adjusted to meet precise production needs. It can be set to a fixed position or attached to a sliding guide fixed to the extruder's frame, allow it to be moved for easy cleaning. The screw profile will be defined according to humidity and bulk density of powder.

Twin screw extruders

The extruder is key to the quality of end product and our units offer a number of major advantages, the most important of which being its split design, allowing fast and easy access for color changes and cleaning operations:

- Screw diameter 22–65 mm.
- Barrel length up to $48/1 = L/D$.
- Throughput 60–2 000 kg/h.
- Maximum screws speed 1 200 rpm.
- AC main motor cooled by water.
- Gear / splitter device P.I.V. or Flender.
- Torque limiter (British Autogard or Mayr).
- Clam shell or book-type barrel, EN 574 compliant.
- Independent temperature control (4 L/D) – heating cartridges and water cooling.
- Accurate control of melt temperature.
- Replaceable liners 4 L/D.
- Sectional screw with variable profile.
- Modular screw 'Mega Volume' or 'Standard' – wear-resistant steel.
- High torque splined screw shafts.
- Internal shaft cooling (large models only).
- Axial or vertical discharge.
- Electrical control panel IP 54, PLC S7-1200/1500, Profinet.
- Siemens TP 1200 IP 65 operating panel.
- Ability to recycle fine powder $\leq 12 \mu$.
- Fast and easy cleaning.

Cooling and flaking systems

We offer a choice of cooling/solidification solutions based on steel belt or plastic belt technology. The steel belt delivers significant advantages in terms of durability and ease of cleaning, while the plastic belt enables the design of more compact systems for installations where space is at a premium:

- IPCO stainless steel belt grade for powder coating production.
- Plastic belt type TPU + PET with two guiding profiles.
- Frame options: stainless steel, hot dip galvanized or painted carbon steel.
- High efficiency calendaring: 2x pneumatically controlled, chrome-plated squeezing rolls.
- Accurate control of product thickness from 0 to 10 mm via handwheels on either side of the system.
- Safety device by rolls back motion and fast pneumatic opening.
- 2x pressure rolls, one watercooled.
- Stainless steel flaking system, easy access for fast cleaning.
- Flake size avoids problem in micronizing phases.
- Closed loop water recirculation, with heat exchanger and pump.
- Motorized for longitudinal or lateral translation.

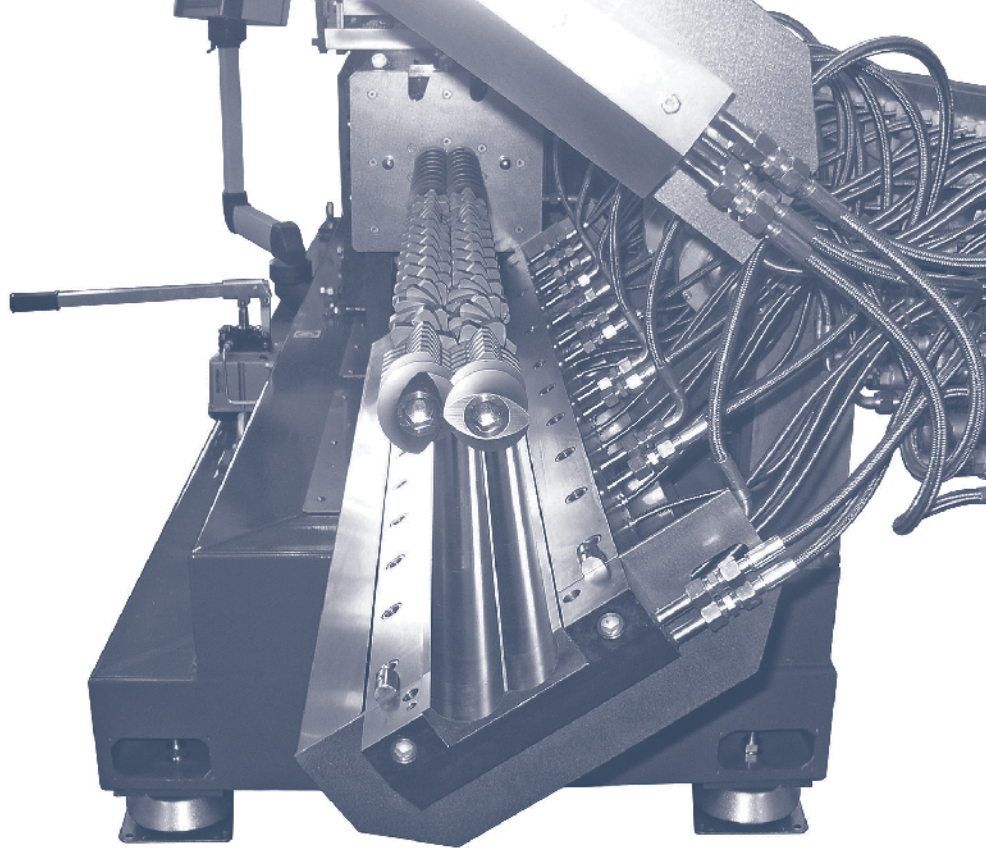
Safety regulation

Designed and built in accordance with:

- CE Rules Standard as a single machine (feeder + extruder + cooling conveyor).
- EC Machine Directive 2006/42.
- Safety Circuit Architecture EN ISO 13849-1 Performance Level D.
- Guarding EN ISO 13857, EN 347, EN ISO 1088, EN 953.
- Clamshell barrel hydraulic opening/closing operation system compliant with EN 574.
- EC Low Voltage 2006/95.
- EC Electromagnetic Compatibility 2004/108.

Quality standard

- In accordance with UNI EN ISO 9001/2008 procedures.



Product range: powder coating extruders

Model Mega Volume	Max. speed [rpm]	Driving power [kW]	Max. through- put [kg/h] at 1 200 rpm	Barrel length L/D	White Epoxy Polyester	Polyester Primid	Transparent	Functionals	Acrylic*	Fines
PCX-22	900–1 200	8–10.5	up to 60	25–29	60	45	20	40	"	20–30
PCX-33	900–1 200	28–38	250–300	25–29	300	230	100	180	"	100–150
PCX-45	900–1 200	77–102	800–900	25–29	900	600	280	500	"	400–500
PCX-55	900–1 200	137–182	1 300–1 500	25–29	1 500	1 200	520	800	"	600–700
PCX-65	900–1 200	223–297	1 800–2 000	25–29	2 000	1 500	830	1 200	"	750–950

*Acrylics – very low viscosity and critical requirements in terms of residence time and product temperature control.

Product range: cooling conveyors

Model Cooling band	Belt width (mm)	Belt thickness (mm)	Belt type	Calender rolls Ø × length (mm)	Pulley distance (mm)	Max. throughput kg/h
PCCB 400 × 4000	400	0.8	Stainless steel	240 × 450	4 000	300
PCCB 600 × 5000	600	0.8	Stainless steel	240 × 650	5 000	450
PCCB 800 × 7000	800	0.8	Stainless steel	240 × 850	7 000	900
PCCB 1200 × 7000	1 200	1.0	Stainless steel	400 × 1 250	7 000	1 500
PCCB 1500 × 7000	1 500	1.0	Stainless steel	400 × 1 550	7 000	2 000

Product range: chill rolls

Model Chill roll	Drum Ø (mm)	Belt width (mm)	Belt thickness (mm)	Belt type	Calender rolls Ø × length (mm)	Max. throughput kg/h
PCCR 350 × 300	350	300	1.3	Plastic	80 × 300	60
PCCR 600 × 600	600	600	1.3	Plastic	120 × 600	150
PCCR 600 × 900	600	900	1.3	Plastic	120 × 900	300
PCCR 1200 × 900	1 200	900	1.3	Plastic	240 × 900	900
PCCR 1200 × 1100	1 200	1 100	1.3	Plastic	240 × 1 100	1 500
PCCR 1200 × 1300	1 200	1 300	1.3	Plastic	240 × 1 300	2 000



Global support ensures maximum productivity

Choose a powder paint production line from IPCO and you can be confident of receiving all the support and advice you need.

Operating worldwide, we have invested in the infrastructure necessary to deliver a genuinely global service covering everything from installation and commissioning to in-house training, repairs and spare parts.

As part of our overall service, we support our systems through the provision of 'best practice' maintenance training, passing on the advanced technical skills necessary for your in-house team to undertake planned maintenance and keep unexpected downtime to a minimum.

We also offer a choice of tailored support packages designed to identify and resolve potential issues before they impact on production. These services range from detailed inspections and reports, highlighting recommended maintenance/remedial action, through to performance optimisation based around a programme of scheduled maintenance visits, with spare parts held on site to ensure maximum uptime.

While these services have been designed to simplify and reduce maintenance requirements, the need for specialist service support will never disappear completely and we have a network of trained and qualified engineers who can respond to maintenance – and more urgent – requirements anywhere in the world.

Choose a powder paint production line from IPCO and you can be confident of receiving all the support and advice you need.





— POWDER — PAINT —
— PRODUCTION —
— EXTRUSION — AND —
— COOLING — SYSTEMS —