

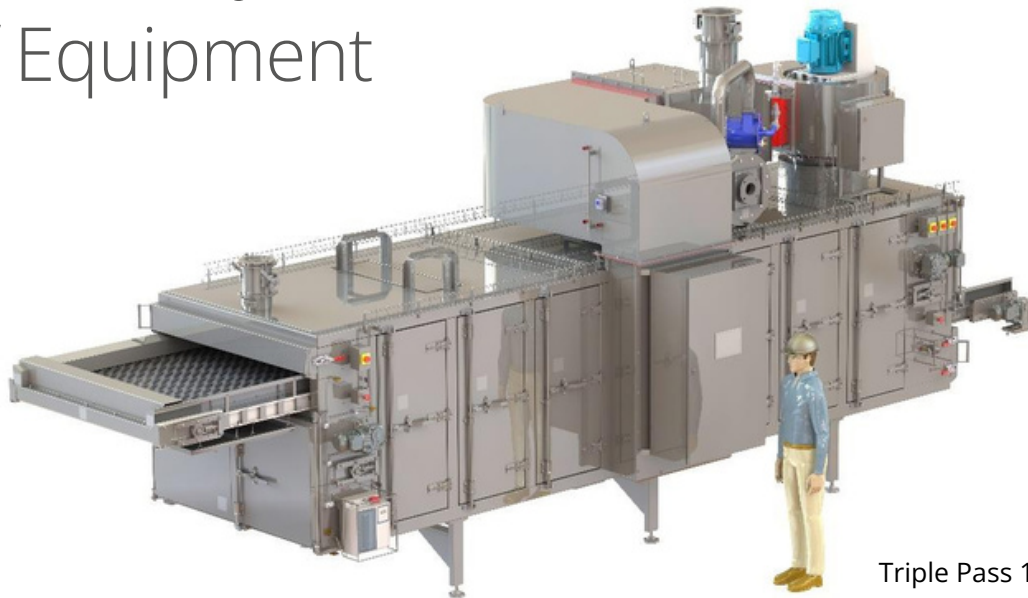


Trusted Food Processing
for a Well-Fed World.



Triple Pass
Dryer

Planet Dryers Line of Equipment



Triple Pass 1000 (to scale)

Our range of dryers are specifically designed to produce a variety of airflow systems across a wide range of applications that include cereals, snacks and nuts, pet food and aqua feeds and much, much more. Each machine provides an excellent drying performance so ensuring a uniformly dried product and a cost effective operation.

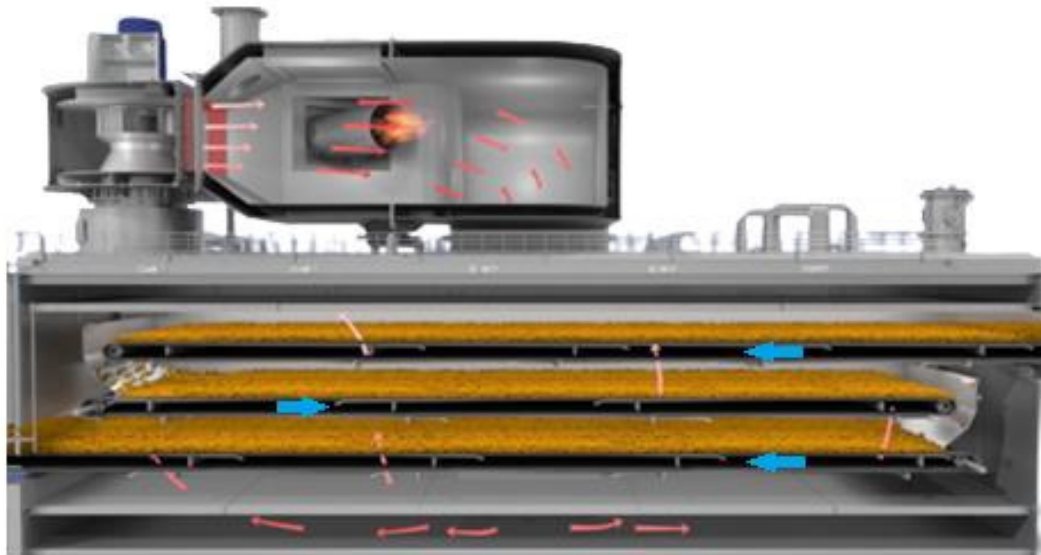
The drying process is created by an even circulation of heated air through a bed of material as it is carried through the dryer chamber on a conveyor band.

At CPM, we fully understand that many processes require absolute precise temperatures. So, the drying chamber can be divided into any number of drying sections, each including an air heater and circulating fan together with fresh air inlet and exhaust facilities, giving the ability to have counter-flow air systems.

Our bespoke range of conveyor-band dryers are individually designed to suit each application and to take into account every industry's specific requirements for hygiene, accessibility and efficiencies.

All Planet Dryers are of modular design to minimize installation times and reduce transport costs.





Product Flow (Left to Right) and Airflow (Bottom to Top)

Features

- Industry proven process and design, with over 150 installations worldwide
- Reduces moisture content (~15%wwb to <1%wwb) of direct extruded snacks, rice cakes, puffed wheat, Ready-to-Eat cereals, etc
- Comprises 3 drying conveyors: capable of effectively processing up to 100mm product depth, providing high drying capacity, while maintaining one of the industries smallest footprints
- Constructed from food safe and durable 304 stainless steel
- Flexibility in choice of heat source:
 - o TP - Gas, Steam, or thermal oil (depending on application)
 - o TP^e - Electric
 - o TP^h - Hydrogen (In Development)
- Heat sources retrofittable on all machines manufactured after ~2018 with no machine modification, or minor modification on earlier machines
- Drying residence time, temperature, and other process settings fully customizable via HMI
- Standardized parts (side guards, product guides, etc) reducing stocked spare parts, changeover times, and potential operator error

Sanitization Benefits

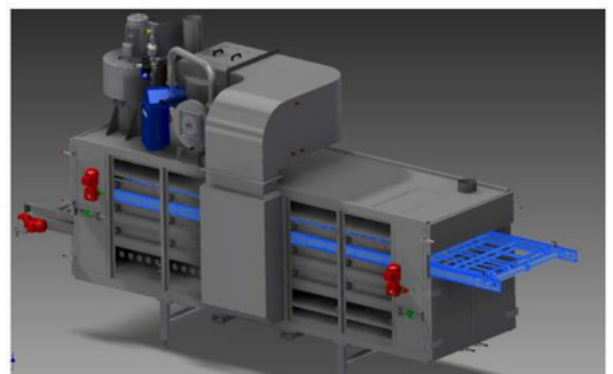
- Fully welded sanitary construction, with internal horizontal surfaces and hollow structures minimized to prevent dirt traps
- Optional welded sloped floor with drain, where thorough wet cleaning methods are required
- Full “Top-to-Bottom” access on all sides providing maximum accessibility to internal space and equipment
- Fully enclosed, seamless door design, with solid door seals, further eliminating dirt pockets
- Steel guarding on underside of infeed and fines trays throughout to catch fines
- Access hatches provided for cleaning of all fans and ducts
- Upper and lower perforated plenums removable for better cleaning and maintenance access
- Conveyors and drive shafts removable as a modular unit, simplifying maintenance
- All bearings and drives mounted externally, prolonging their lifespan, and enabling easier maintenance
- Automatic chain oiler and central lubrication points for easier maintenance



Top-to-Bottom Access on all Sides. Seamless door design



Externally Mounted Bearings and Lubrication Piping



Modular Conveyor & Drive Shaft Design



Fully Enclosed Blue Silicon
Door Seals

Optional Ancillaries / Periphery Equipment

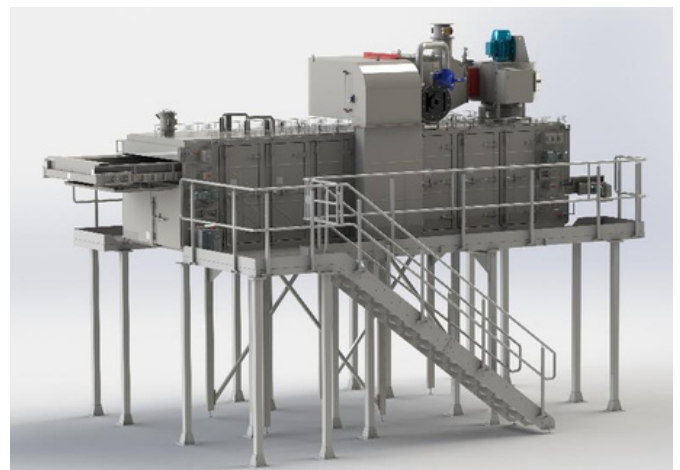
- Various infeed and outfeed conveyors for complete line installation
- Access platforms, gantries, handrails, etc
- Conveyor wash sprays and air knives
- Rotary dry conveyor brush and catch pans

Safety

- Lockable handles and inter-lockable doors
- All hot equipment enclosed as much as possible
- Outer skin of doors and panels remain at near ambient temperatures, even after prolonged operation, improving operator safety
- Blue Silicon Rubber door seals to satisfy food safety requirements, with optional metal detectability
- Integrated automatic safety systems to shut off heat source and evacuate any remaining product



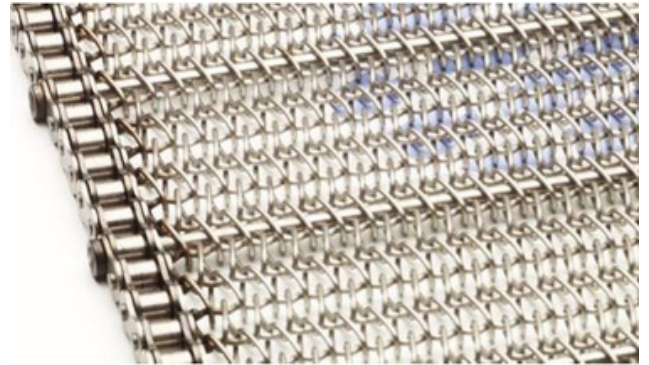
All Doors with Robust Positive
Door Locks



Ladders, Handrails, and Access
Platforms

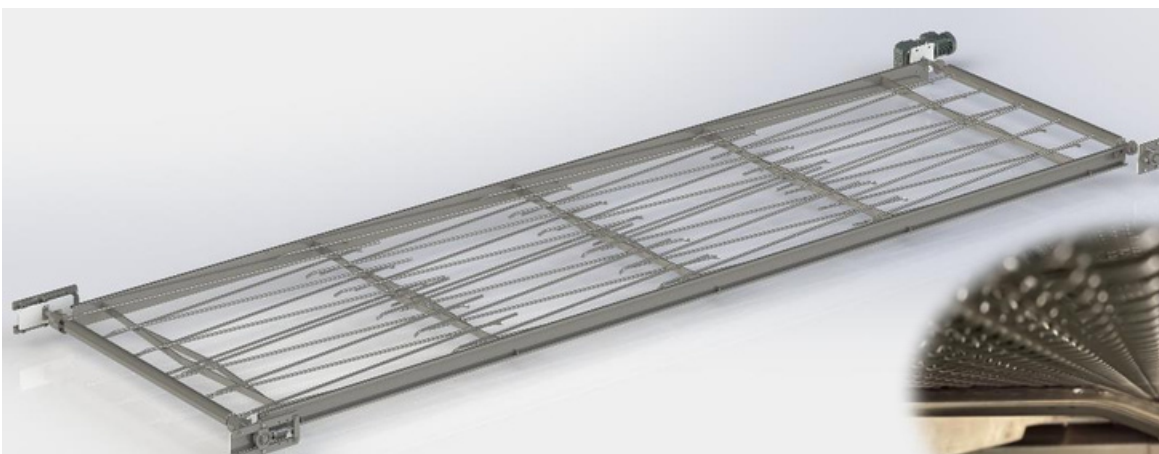
Performance

- Independently verified moisture control of less than 0.6% variation across an evenly loaded product bed*
- Designed to operate at temperatures of up to 175°C (347°F)
- Nominal throughputs of 300kg/h, up to 1200kg/h
- Recipe storage for rapid and error free product change
- Fast drying times, typically 3 to 12 minutes, depending on product and bed depth
- Capable of 24/7 production
- Woven stainless steel mesh conveyor enables exceptional air circulation and cleanability, while incorporated round bar supports reduce conveyor drag and wear
- EWON Cozy Remote Modem, enabling authorized remote access and support if necessary



Woven Stainless Steel Conveyor Belt for Exceptional Air Circulation

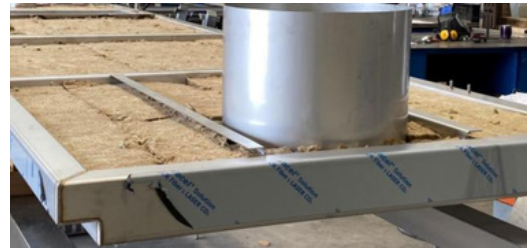
*Measured at 550 kg/h and 700 kg/h throughput (currently being reverified)



Round Bar Herringbone Belt Supports

Energy Efficient / Reduced Carbon Footprint

- Designed for energy efficiency, with 70mm of high efficiency thermal insulation in all doors/panels, top ductwork, and fans
- Automatic airflow modulation and optimized plenum designs to reduce turbulence and energy consumption
- Heater size, fuel source, and process settings optimized according to customers' needs and product requirements



All Panels Insulated with Minimum of 70mm High Efficiency Insulation

Model TP / TP _e / TP _h	Weight (kg)	Capacity (kg/h)	Effective Conveyor Width (mm)	Overall Length (mm)	Overall Width (mm)	Overall Height (mm) *	Power Consumption excl. heater (kW)	Gas Heater (kW) Rated / (Consumption **)	Electric Heater (kW) Rated / (Consumption **)	Hydrogen Heater (kW) Rated / (Consumption **)
TP(x)300	5,250	300	820	7,029	1,790	3,592	9	220 (TBC)	220 (TBC)	TBC
TP(x)500	5,550	500	1,118	7,029	2,090	3,592	9	220 (TBC)	220 (TBC)	TBC
TP(x)1000	7,000	1,000	1,418	8,674	2,440	3,592	16	350 (110)	287 (90)	TBC
TP(x)1200	7,290	1,200	1,418	9,078	2,440	3,592	16	350 (TBC)	350 (TBC)	TBC

*with 500mm leg frame

**Consumption measured with unloaded dryer. Exact energy consumption will depend on final specification of the dryer, product wetness, bed depth, ambient conditions, etc.

TP - Gas Heater

- Startup time of approx. 14 minutes (5 mins purge, and ~9 minutes pre-heat)
- Industry proven technology
- Cheaper raw energy cost, excl. any local / on-site renewable energy generation
- Automatic flame modulation, up to 50:1 for peak energy efficiency
- No exhaust fan required
- Optional low NOx and emissions burners

TP_e - Electric Heater

- Faster startup time of approx. 11 minutes
- No open flames
- Dispersed (less aggressive) heat distribution
- Heat source does not increase humidity
- No exhaust fan required
- Lower maintenance requirements
- Retrofittable to all dryers less than 5 years old
- Reduces carbon footprint
- Reduces hazardous substances (gas, steam, etc)
- Comparable energy consumption to gas
- Same machine footprint, excl. a remote mountable control panel

TP_h - Hydrogen Heater

- In Development. Contact a CPM Sales Advisor for latest information



Trusted Food Processing
for **a Well-Fed World.**



The Planet Dryers line offers a comprehensive selection of food machinery, including roasters, toasters and thermal expansion equipment, as well as innovative machinery for cutting, flavoring, conveying, and other special-purpose applications.

Aftermarket Services

CPM's aftermarket service team is there for you every step of the way. From installation, start-up, maintenance and spare parts, CPM's team of experts has a solution for your equipment and process needs. Our team can also fine-tune the operations of your machine, increase production, improve quality and minimize downtime.



OneCPM.com
planetdryers.info@cpm.net
+44 (0)1733 232 232