

# Trusted Food Processing for a Well-Fed World



# PLANET SIDE PLENUM DRYER/ROASTER



The Side Plenum Dryer/Roaster machines are designed to process a wide range of food and non- food products. These dryers are extremely versatile and offer a wide range of process dependent features and configurations.

### **Description**

The Side Plenum machines have been designed to be hygienic using high grade stainless steel. The Side Plenum dryers are modular in construction. This allows for future expansion and makes the machines easy to transport and install with minimal downtimes.

The drying chamber is divided into a number of individual zones. Each zone includes an air heater, a circulating fan with an exhaust to control airflow and optimise drying conditions, allowing a counterflow air system with precise temperature control.

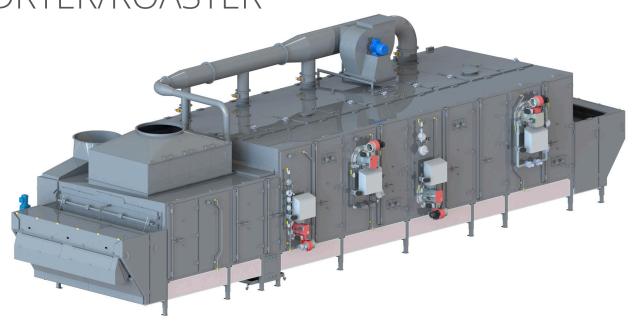
The Side Plenum Dryers employ a recirculating air-flow system which provides the necessary drying characteristics to ensure accurate control over moisture levels, temperature uniformity and product consistency in an energy efficient manner.







PLANET SIDE PLENUM DRYER/ROASTER



#### **PROCESS**

Product is fed onto the infeed section and spread across the conveyor bed by a spreader such as a ramshorn, oscillating spreader or a scarf edge conveyor. The conveyor transfers the product through multiple heating zones, consisting of circulating fans which circulate heated air through the product. The air is heated by steam or a gas fired burner with configurable upward or downward airflow. The machines use a controllable recirculating airflow system with a variable exhaust airflow and precise temperature control.

Product can then travel through either an ambient air or chilled air cooling section if required. This zone draws in filtered air that has been cooled or chilled. The product then exits through the discharge section of the machine.

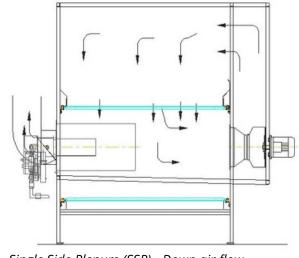
The conveyor belt speed is controlled by a variable speed drive to allow the required retention time. Zonal temperatures are monitored and controlled by a modulating valve on each burner or heat source. The amount of air recirculating around the system is controlled by the speed of the recirculating fan.

### **Applications**

RTE Breakfast Cereals, Granola, Corn Grits, Popped Cereals, Snack Food, Fruits and Vegetables, Reconstituted Cereals, Potato Products, Roasting of Nuts and Seeds, Pet Food, Industrial Polymers



### CONFIGURATIONS



Single Side Plenum (SSP) - Down air flow

### SINGLE SIDE PLENUM (SSP) DRYER/ROASTER—Single Pass, Multi Stage

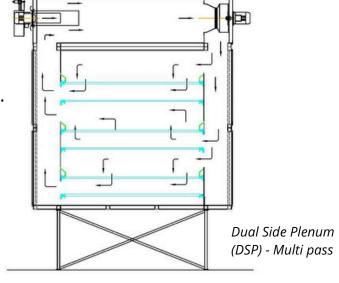
The Single Side Plenum Dryer/Roaster machines typically consists of a single pass conveyor belt running along the length of the dryer consisting of multiple drying zones.

The single pass conveyor may consist of multiple stages along the drying zones if required. Each drying zone consists of a recirculation fan and a heat source. This fan and heat source arrangement enables upward airflow or downward airflow through the product bed.

### DUAL SIDE PLENUM (DSP) DRYER/ROASTER— Multi Pass

The Dual Side Plenum Dryer/Roaster machines can consist of up to three passes. The conveyor belts run along the length of the dryer consisting of multiple drying zones. Each drying zone is designed to allow both upward or downward airflow.

The Dual Plenum Multi Pass machines are typically used where floor space is at a premium. They have the benefit of naturally turning the product between conveyors to aid in even drying results.



Alternating airflow through each conveyor and through each heating zone results in optimum performance and low energy consumption.

Internal division sheets are provided between the dryer compartment, the fan compartment and air recycle compartments to direct the airflow as necessary. These division sheets are fabricated in sections which are hinged to allow access to the dryer compartment for cleaning.

### **ACCESSORIES & CONFIGURATIONS**



**Pickers** 



Granulator

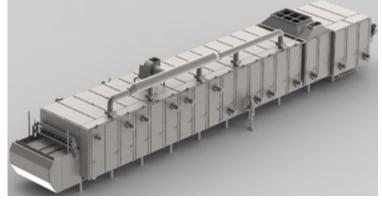


Rams horn spreader

### **Acessories**

Storevayors

Apron Feeders
Product Spreaders
Pickers
Granulators
Meeting Feed Conveyor
Tempering Bins
Band Wash
Coolers



Single Side Plenum Multi Zone Drying &Cooling



Dual Side Plenum Multi Pass Drying and Cooling



Corn Flakes line — Cooked Corn Drying and Tempering

#### Let Us Test it For You

Our test lab is well equipped to assist in developing the optimum drying conditions for your application.



## 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 global service team is there for you very 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.



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