
PPT
PPT
ISO
9001:2015
CERTIFIED

PPT

1973

Indiana General

1988

Powdertech

2002

Powder Processing and Technology

2018

PPT Acquires CCP

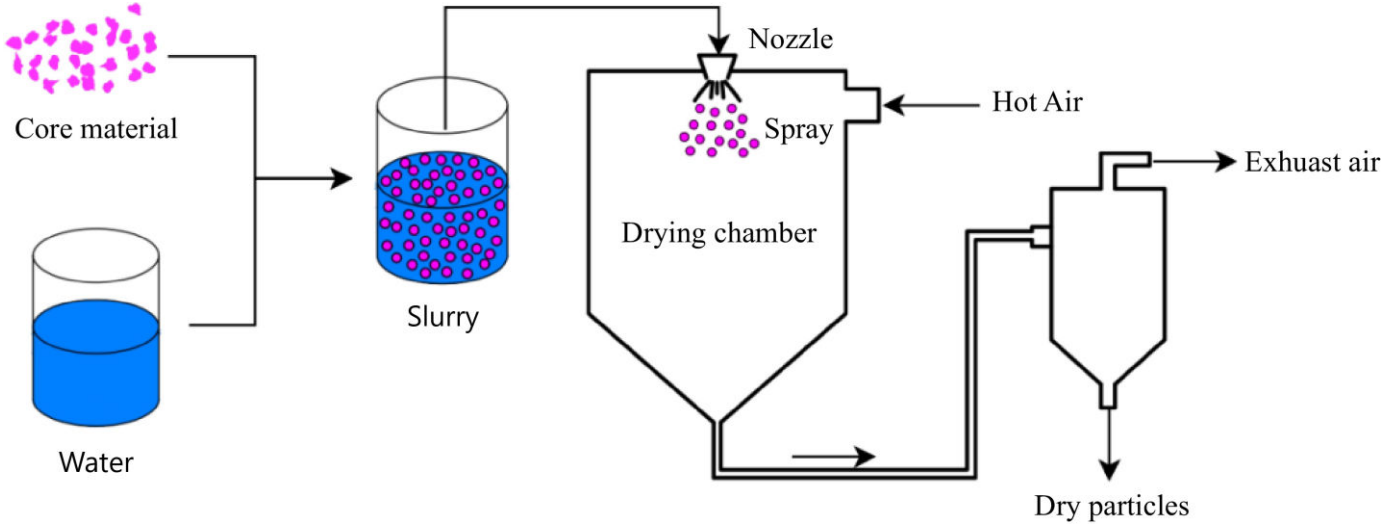
2021

PPT Acquires RT

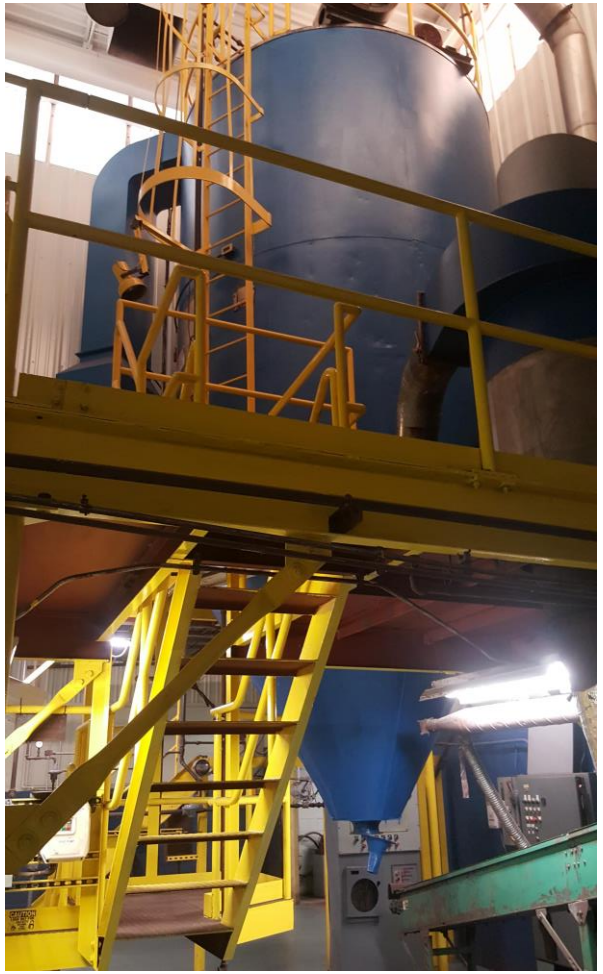
Plant wide Capabilities

Spray Drying: What is it and What are the Applications?

- Spray Drying is a process that dries a slurry into powder using hot air
- Industries that use spray drying: food industry, pharmaceutical industry, chemical industry, and materials science.
- Some of the key benefits of spray drying:
  - Fast drying process
  - Uniform particle size
  - High efficiency
  - Flexibility

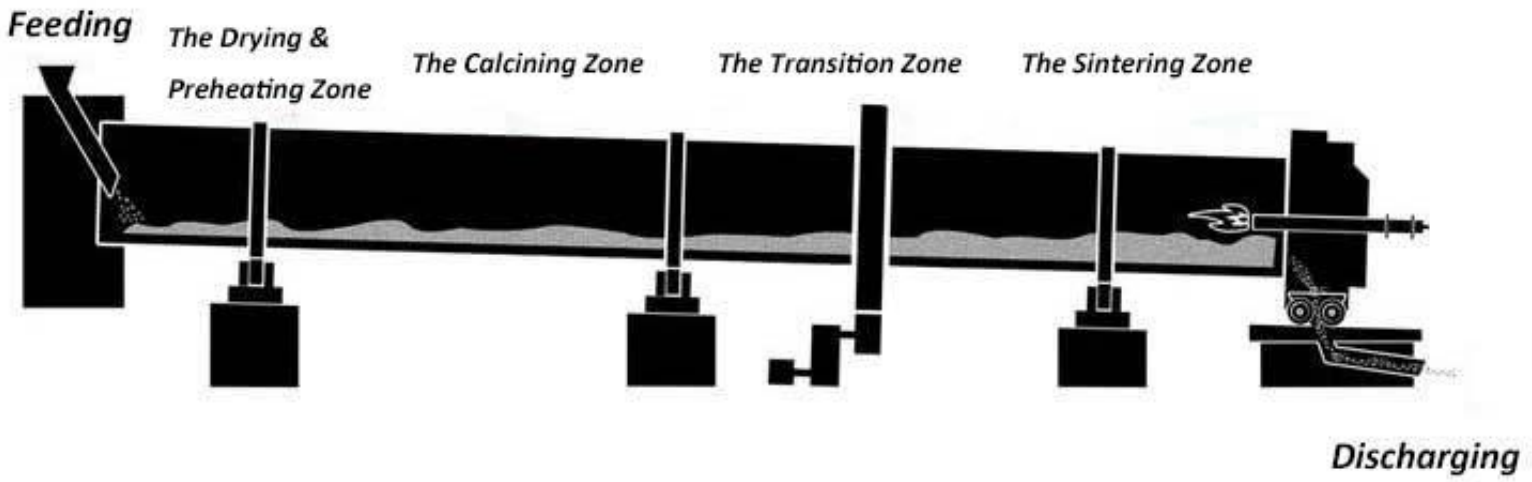


- Our spray dryers range from 5-500kg/hr
- Can use nozzles or atomizers
- Particle sizes range from 30-150um
- Explosion suppression capabilities at our CCP Site
- Dryer diameters ranging from 9.5’ - 20’



What is a Calciner and how does it work?

- Rotating tube furnace
- Temperatures of up to 1100°C for indirect fired calciners
- Temperatures of up to 1371°C for direct fired calciners
- Adjustable atmosphere (air, nitrogen, or steam)
- Common applications of this process include
  - Mineral processing
  - Catalysts
  - Cement production
  - Electronic material production



- **9 Indirect Fired Production Calciners**
  - Max temperature: **1100°C**
  - Tube diameters: **48”, 42”, 39”, and 14”**
  - Heating zone length: **16–40 feet**
- **2 Pilot Plant Indirect Fired Calciners**
  - Max temperature: **1100°C**
  - Tube diameter: **6”**

- **1 Direct Fired Calciner**
  - Max temperature: **1400°C**
  - Tube diameter: **42”**
  - Heating zone length: **40 feet**
- **Additional Capability**
  - Can process materials that produce **Nitrogen Oxide**
  - Equipped with a **Tri-Mer emissions control unit**

- **Tri-Mer Emissions Control Unit**
  - Handles **NOx emissions**: **2–50 lbs per hour**
  - **NOx destruction efficiency**: Adjustable up to **95%**
  - Captures **particulate matter (PM)**:
    - **PM10, PM2.5, and submicron PM**
    - **Over 99% efficiency**

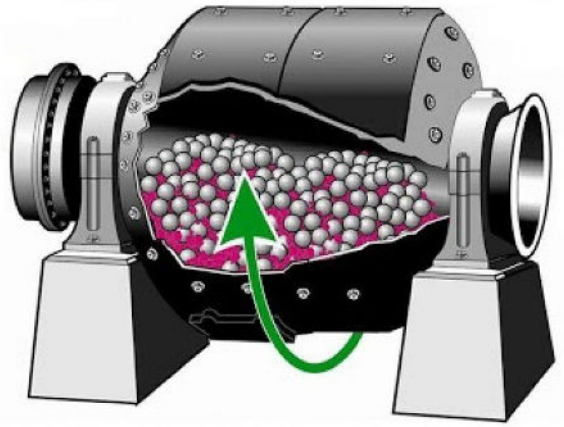
- 2 Elevator Kilns
  - Max temp. – 1480 degrees Celsius
  - One car of 26” W x 26” L x 40” H
- 1 Shuttle Kiln
  - Max temp. – 1200 degrees Celsius
  - Two cars of 38” W x 144” L x 56” H
- 3 Tunnel Kilns
  - Max temp. – 1480 degrees Celsius
  - Continuous push 34 or 37 cars of 20” W x 40” L x 32” H
  - 6~24 hour high temperature soak time
- 2 Roller Hearth Kilns
  - Max temp. – 1400 degrees Celsius
  - 2-8 hours residence time

Our Quality Assurance

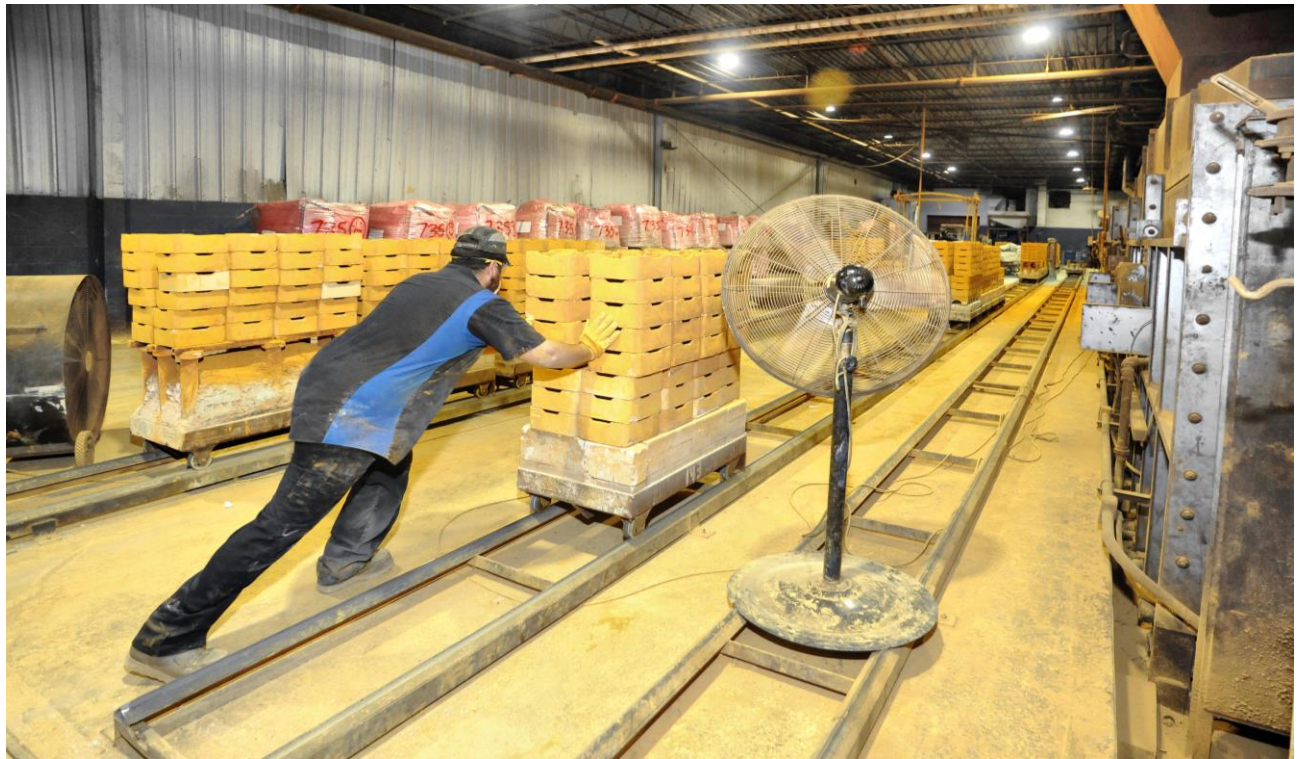
- Loss on Ignitions (LOI)
- Particle Size Distribution
- BET Surface Area and porosity
- XRF Composition Analysis
- Carbon Content
- Toroid testing
- Magnetic Saturation
- Moisture Content
- Powder Flow Rate
- LECO Carbon Analyzer
- Powder Bulk Density
- Sieve Tumbler
- Impedance analyzer
- Electromagnetic Properties

Other Processes

- Ball Mills (ceramic and steel)
- V-Blenders
- Hammer Mills
- Attritor Mills
- Cone Blenders
- Ribbon Blender
- Vibratory Screeners
- Vibratory Mills
- Munson Rotary Batch Mixer
- Nauta Blender



Powder Processing and Technology would love the chance to work with you. We are over at booth 214 so please stop by if you have any questions.



PPT

Don’t forget to participate in our raffle where you will have 3 chances to win!

JBL Flip 4 Waterproof Speaker

ACEZUK Portable Car Jump Starter with Air Compressor

Ring Doorbell