

# Solutions for the Pharma Industry

Decades of experience in sanitary design and state-of-the-art technology form the basis for our innovative extrusion, feeding and material handling solutions for the pharmaceutical and nutraceutical industries.



## Extrusion

Extruders, Pelletizers and Ancillaries

Typical applications include:

- > Hot melt extrusion
- > Wet granulation/extrusion
- > Pressure-sensitive adhesives
- > Implants/bio-degradable implants
- > Oral films
- > Contraceptives (e.g. vaginal rings)



## Feeding and Dispensing

Volumetric and Gravimetric Feeders

Feeder types include:

- > Vibratory
- > Single and twin screw
- > Liquid loss-in-weight
- > Loss-in-weight and gain-in-weight batching systems
- > Continuous operation feeders
- > Dispensary feeders



## Conveying

Dilute and Dense Phase, Positive and Pressure

Typical systems include:

- > Blender loading
- > Tablet press and capsule filler loading
- > Dilute and dense phase conveying via vacuum
- > Refill of loss-in-weight feeders for continuous processes
- > Transfer of highly potent materials
- > Combined volumetric feeding and conveying where space is limited

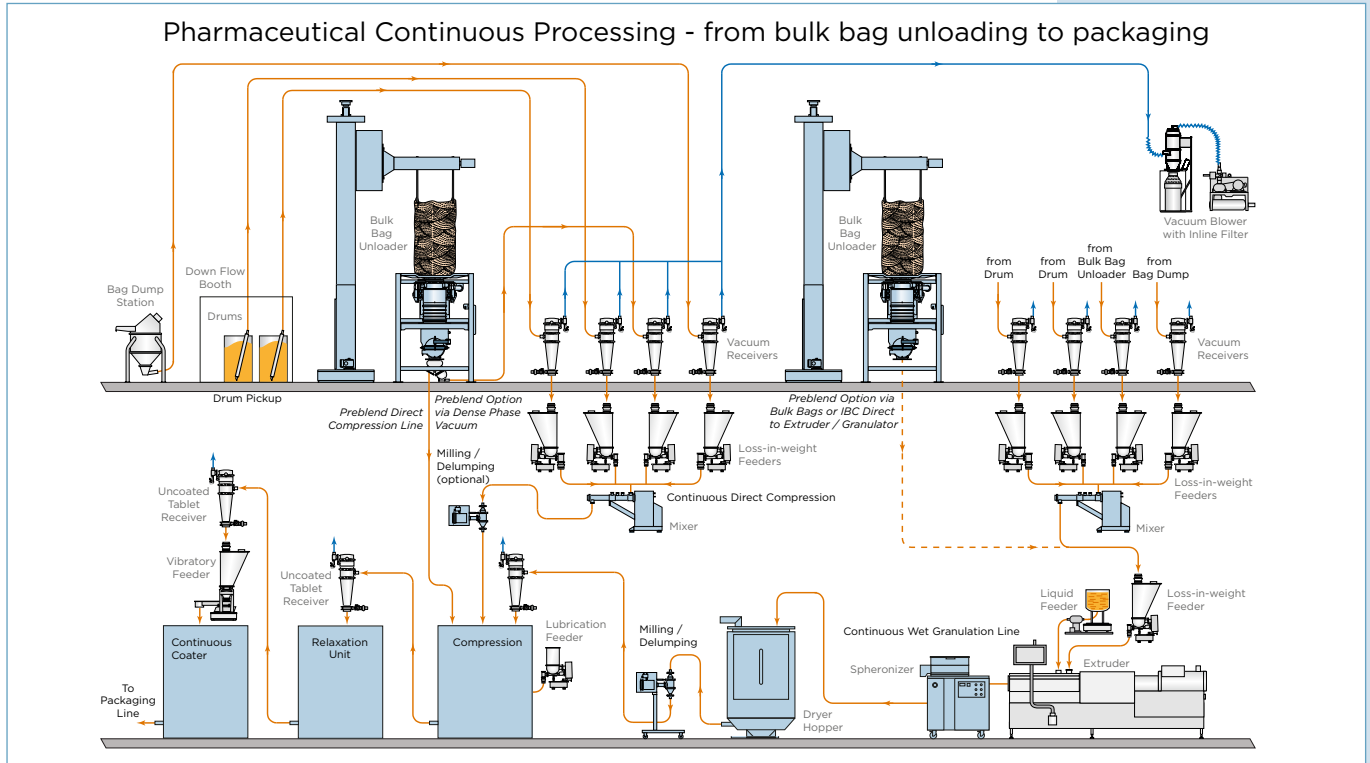


## Material Handling

We offer a wide range of high quality components, such as:

- > Diverter valves
- > Rotary valves
- > Secondary filters
- > Feed bins and bag dump stations

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## Systems Engineering Design

Experienced systems engineering groups create optimal solutions for any application with options on features such as:

- > Compliance with EHEDG, FDA, FSMA and/or GFSI initiatives, standards and regulations
- > Extensive application and material handling expertise of even the most difficult materials
- > Custom designed PLC controls with a variety of protocols with detailed HMI designs
- > Recipe and function loop controls, bar codes and tracking, and complete systems alarm analysis
- > Validation documentation for FDS, FAT, and SAT IQ, SAT OQ

## State-of-the-Art Test Facilities

Fully equipped test labs at a variety of locations around the world. Each location can conduct tests with your process materials to answer critical process questions and determine the best configuration for a particular product or group of products.



Coperion K-Tron is a proud member of the Rutgers University Engineering Research Center, including the working continuous direct compression system shown here.

