PASSAGE®/DEM Software

OVERVIEW

PASSAGE®/DEM software is for predicting the flow particles under a variety of forces while traveling in electrostatic, magnetic or gravitational field.
• Particles can be of
 • different shape and size with given distributions,
 • solid, liquid, and gas with surface tension,
 • charged Individually,
• Particles can grow, shrink, deform, divide, join other particles and be charged,
• Capabilities include,
 • Full coupling of Particle and Flow Models for Multi-Phase Flows,
 • Coupling with flow, structure, magnetic and electric Fields
 • Multiple Sliding and Overset Grid Algorithms for stationary or moving boundary surfaces.
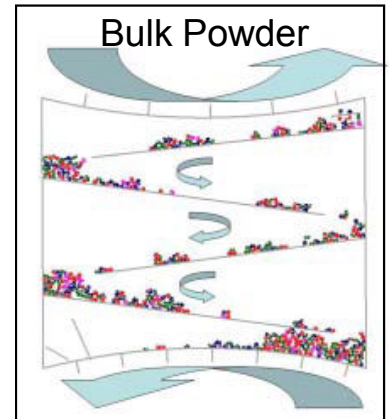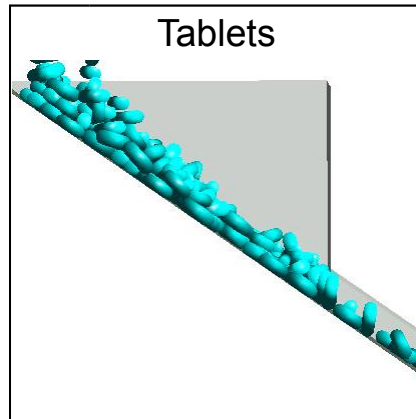
INDUSTRIES

Product:
 • Digital Imaging, Computers and Printers
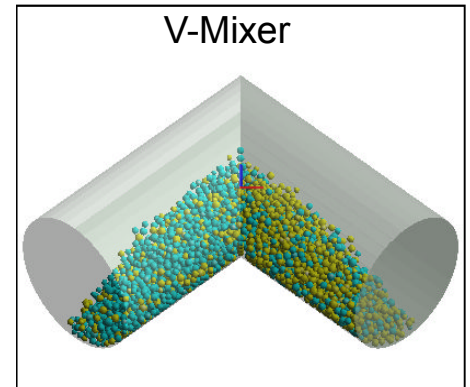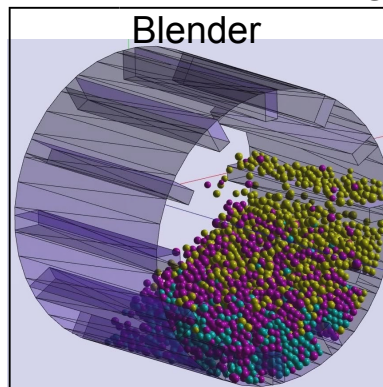 • Construction, Mining and Agricultural Machinery
Process:
 • Pharmaceutical and Chemical
 • Food
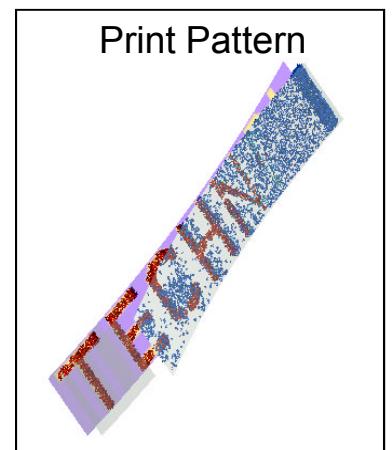 • Bulk Powder
 • Materials
 • Mining, Minerals
 • Metals

Transport of Particles

Tablets

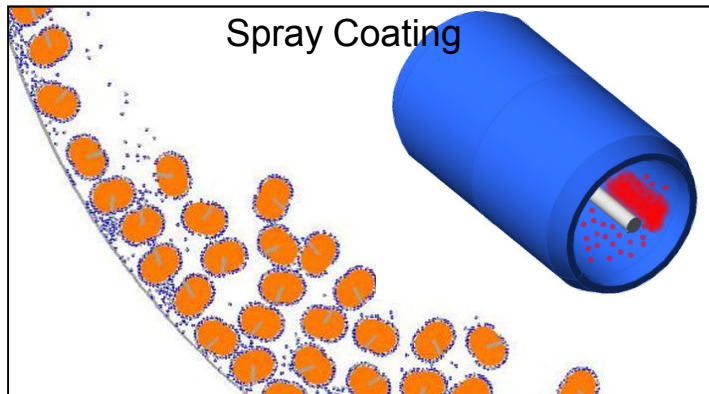Bulk Powder

Mixing of Particles

Blender

V-Mixer

Printing of Toners- Development Process

Toner Voltage

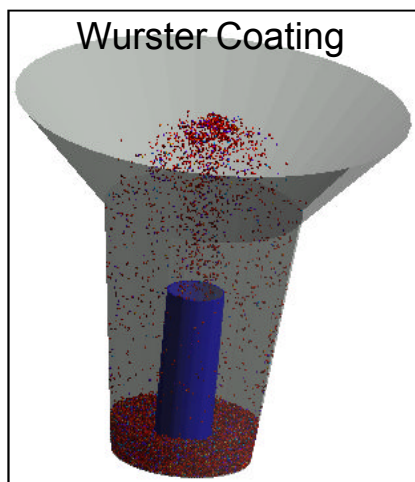Print Pattern
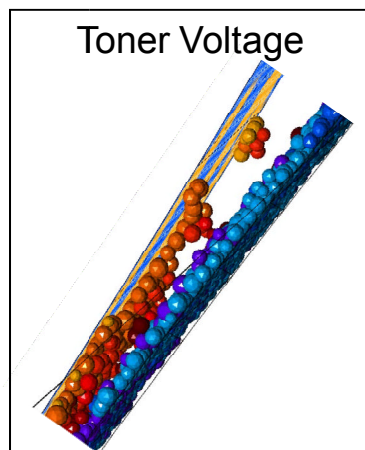
Tablet Coating

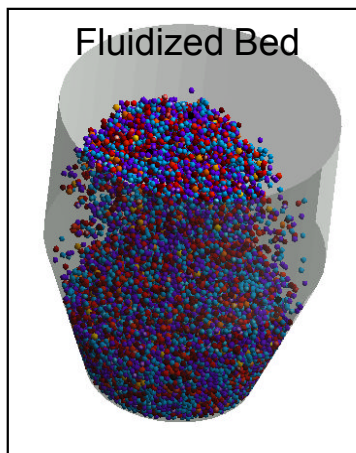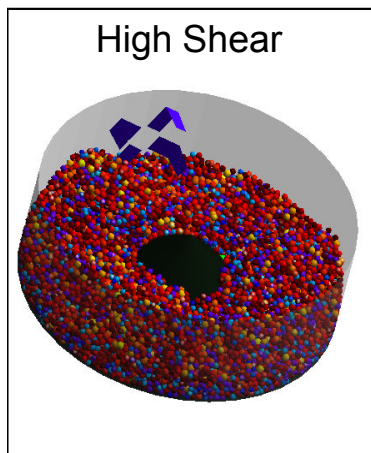## Spray Coating

Wurster Coating

Granulation of Tablets

Fluidized Bed

High Shear

FEATURES

• Coupled equations of motion, transport of particle properties, electrostatic and magnetic fields, are calculated.

• Structural deformations of boundaries such as rollers, belts driving the particles are also included in the models,

• A user friendly pre- and post-processor is provided to input the geometry of the boundaries and the particles, as well as the display of the motion and other properties of the particles.

• Graphical user interface enables review of complex unsteady flow fields in detail.

• **PASSAGE®/DEM** runs on PC based workstations

• **PASSAGE®/DEM** software was developed and is offered exclusively by Technalysis, Inc..

• Software has been validated and utilized for the design of many real world problems. It is supported by numerous case studies.

• Technalysis provides design experience complementing the software.

BENEFITS

• **PASSAGE®/DEM** software can minimize the cost and time of traditional prototype building and testing, thus shortening product design cycles.

• Designs can be analyzed and modified on the computer before expensive and time consuming design decisions are finalized.

• Technalysis offers software customization of **PASSAGE®/DEM** software can be customized to meet specific customer needs.

• Designs can be analyzed and modified on the computer before prototypes are built or decisions are finalized when design changes become costly and time consuming,

• Technalysis has extensive experience since 1985 for incorporating simulation tools to design process.