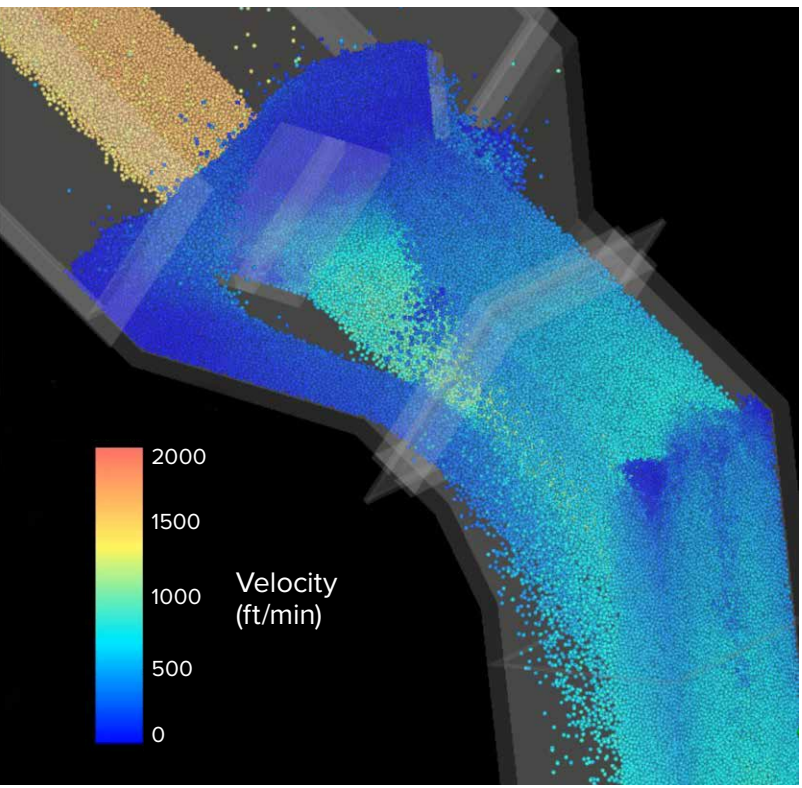
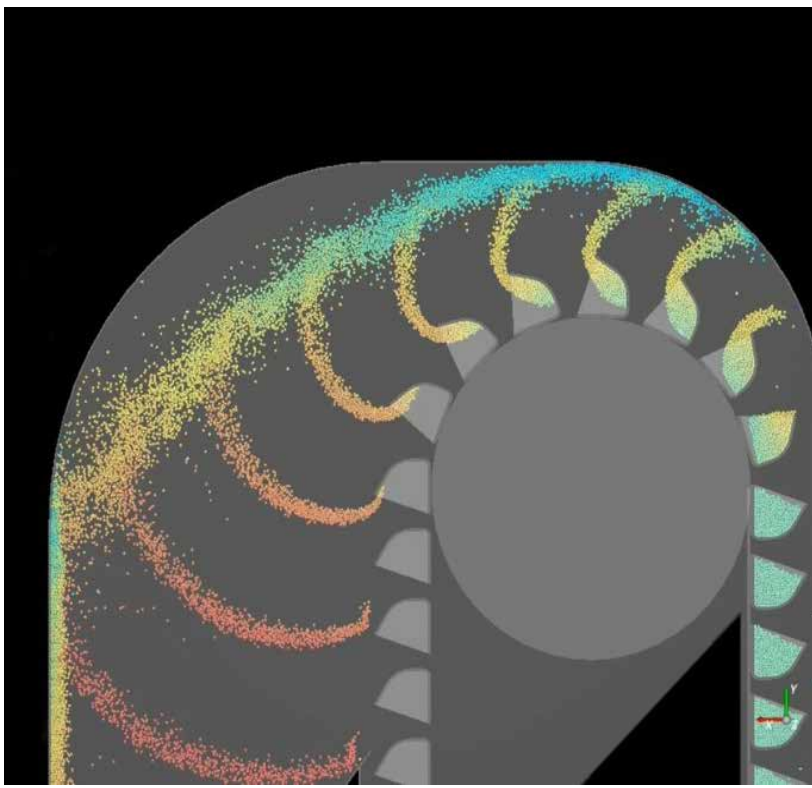
Discrete Element Method Modeling

Analyze material flow to optimize bulk handling.





Discrete element method (DEM) modeling can de-bottleneck and improve transfer points in existing and new bulk material handling installations.

In any given material handling facility, many millions of individual granular materials interact with multiple transfer points and equipment. To understand the behavior of this constant flow, DEM computer modeling can accurately simulate individual positions, velocities, and forces of bulk materials, like grains or byproducts. It can help you unlock data to avoid guesswork and identify areas of improvement through accurate flow analysis of bulk materials.

DEM uses in bulk material handling

- Design of process and material handling equipment
- Design of transfer points between equipment
- Optimize wear liners by identifying type and necessary locations
- Optimize directional changes and eliminate choke points

Facility and operational benefits

- Increase capacity and reliability of existing systems
- Decrease capital costs of new projects and lower maintenance burden
- Eliminate need for costly field fixes during startup and commissioning
- Solve belt tracking issues on belt conveyors and bucket elevators