

The Eulerian–Lagrangian approach Mistral/PartFlow–3D

Basic assumptions :

- statistically stationary, incompressible and isothermal fluid flow
- constant physical properties of the fluid flow; Newtonian fluid
- disperse phase can be treated as rigid spherical particles
- gas–particle flow is dilute; assumption of one–way coupling

Characteristics of the numerical approach Mistral–3D :

- 3–dimensional, time–averaged form of transport equations (Navier–Stokes equations and turbulence model)
- finite volume discretization on block–structured grid with arbitrary, hexagonal control volumes
- pressure–velocity coupling algorithm of SIMPLE kind with colocated arrangement of variables on numerical grid (Perić/Lilek, 1996)
- standard k – ε turbulence model



Investigation of Particle Separation in Symmetrical Double Cyclone Separators

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