

## Cyclone Process Sheet



- Geometry
  - 0.2 m maximum diameter
- Temperature
  - Isothermal at 300 K
- Particles
  - Chalk powder, particle density =  $2730 \text{ kg/m}^3$
  - Bulk density = 0.5 particle density
  - PSD provided
  - Loading =  $50 \text{ g/m}^3$  of air
- Fluid
  - Air
  - Gas flow =  $0.04 \text{ m}^3/\text{s}$
- Boundary Conditions
  - Flow BC - Solids can enter at inlet
  - Pressure BC - solids exhaust at the vortex tube only