Applications of circulating fluidized bed (CFB) reactors

- Fluid catalytic cracking
- Gasification of coal
- Thermal cracking
- Fischer–Tropsch synthesis

Most important process step occurs in Riser

Typical operating conditions

- particle size: 50µm – 100µm
- superficial gas velocity: 5 m/s – 30 m/s
- voidage: 95% – 99%

Typical flow patterns

- turbulent
- lateral segregation
- recirculation

Role of CFD

Predict effect of design changes and scale-up on flow patterns.