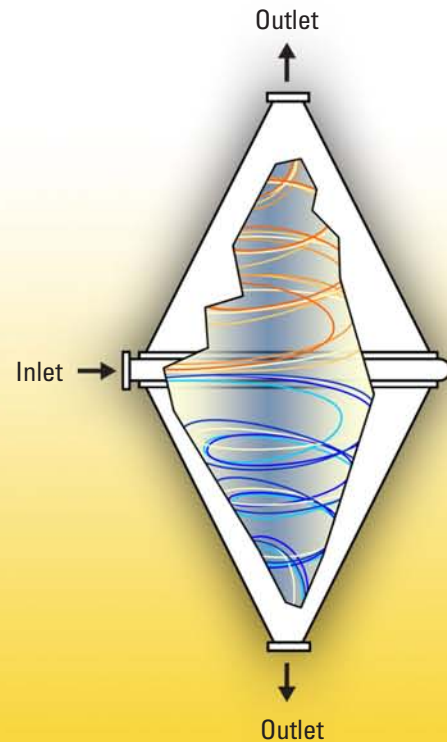


Separation Technologies

Gas-Liquids • Gas-Solids • Liquids-Solids

- Petroleum Refining
- Petrochemicals
- Polymers & Plastics
- Specialty & Fine Chemicals
- Oil & Gas
- LPG
- LNG

Spiral Speed Separator (SSS)



UTC Spiral Speed Separator Systems

Principle:

Combination of tangential, centrifugal and gravitational forces resulting in far more effective and superior separation.

Typical Applications

I. Gases or vapors from liquids

- Far more efficient separation than the conventional design (horizontal or vertical) configuration such as reflux drum, vapor – liquid separators, cyclones, knock out drum, etc.

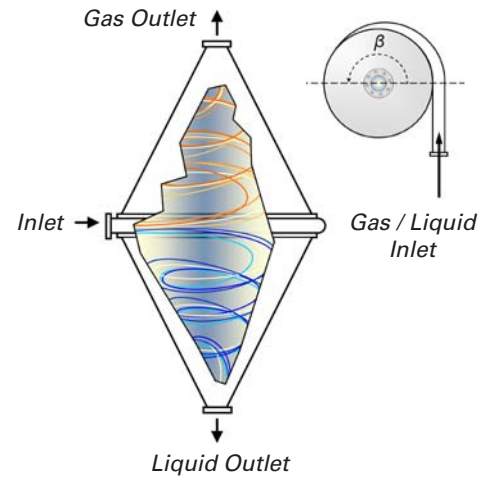
II. Gases or vapors from solids

- Far more efficient separation of catalysts, polymers, specialty and fine chemicals, other difficult solids, etc.

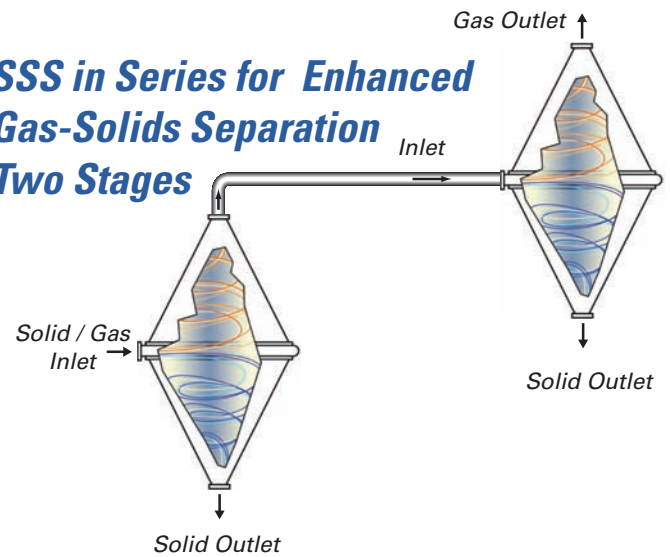
III. Liquids from solids

- Far more efficient separation operation than Hydroclone

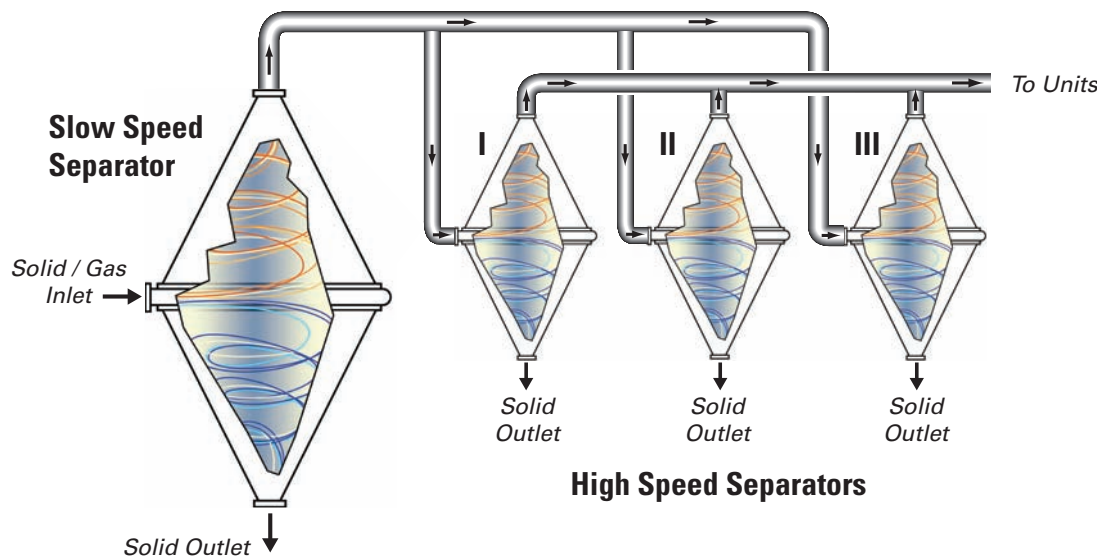
UTC Spiral Speed Separator



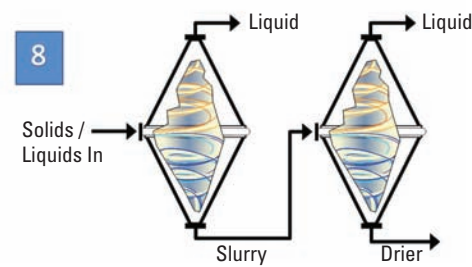
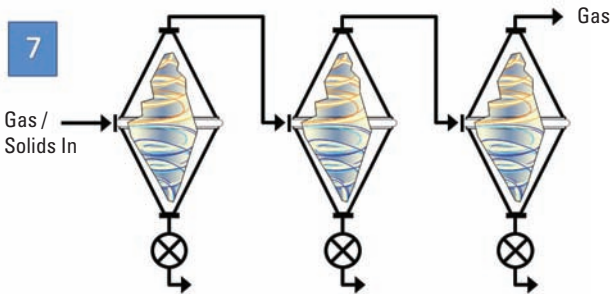
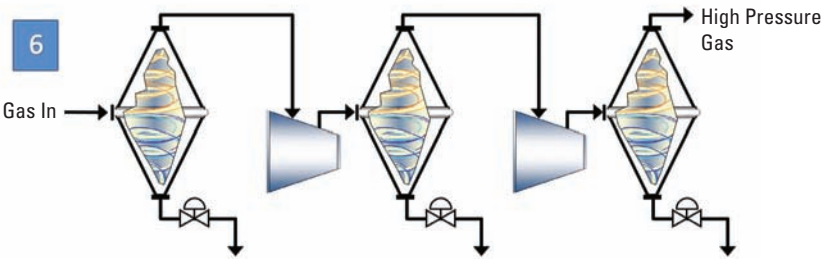
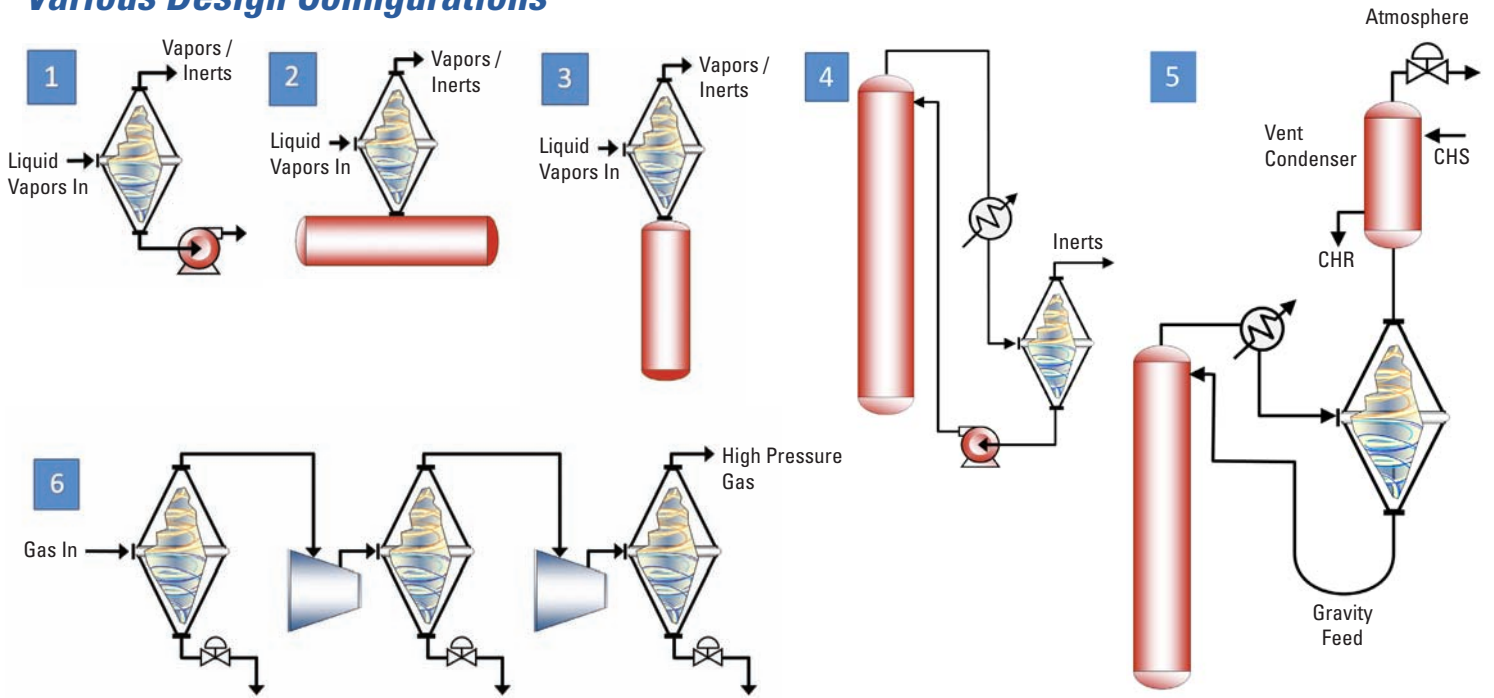
SSS in Series for Enhanced Gas-Solids Separation Two Stages



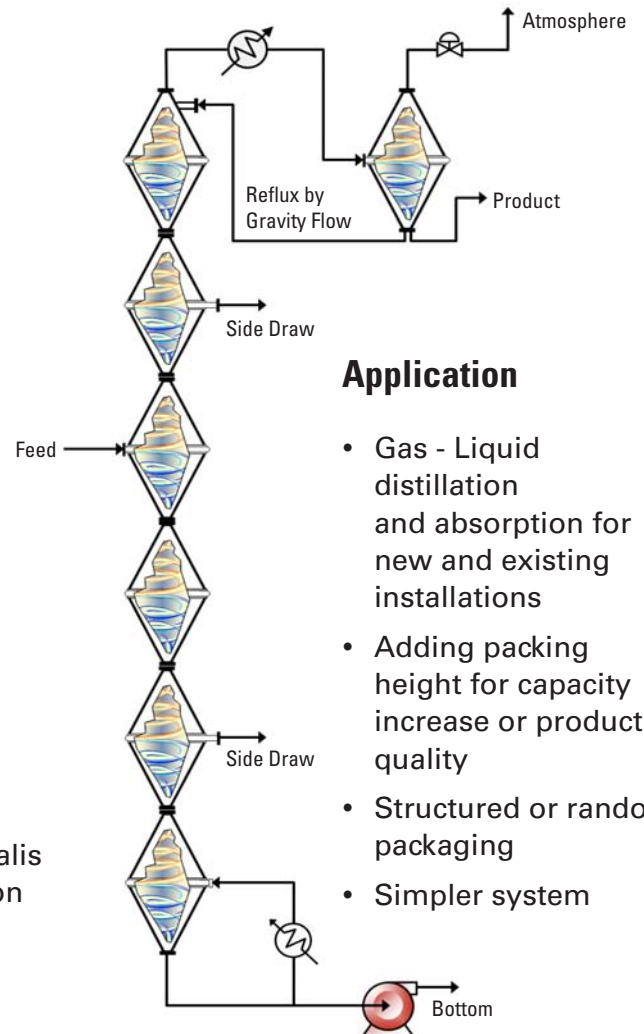
SSS in Series for Enhanced Gas-Solids Separation Multiple Stages



Various Design Configurations



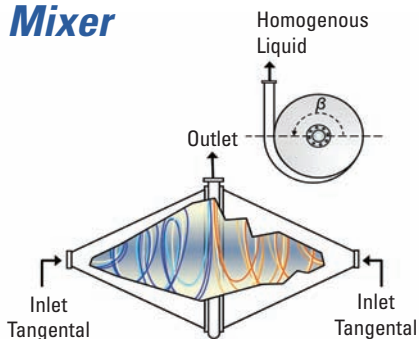
Converging and Diverging Tower



Application

- Gas - Liquid distillation and absorption for new and existing installations
- Adding packing height for capacity increase or product quality
- Structured or random packaging
- Simpler system

Spiral Speed Mixer



General Application

- Mixing and blending of fluids resulting in homogenous stream
- Dilution of acids or alkalis for proper concentration
- Mixing of solids with liquids

UTC Separation Technologies

Advantages:

- Far more efficient than conventional equipment and systems
- Higher liquids removal efficiencies
- Higher solids removal efficiencies
- Elimination of the liquids carry out to compressors, expanders, reactors, etc.
- Simpler fabrication and installation
- 80 - 90 % reduction of load to the Bag House or Pollution Control System
- Overall low capital cost
- Lower operational and maintenance costs

Imagination is the Limit



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