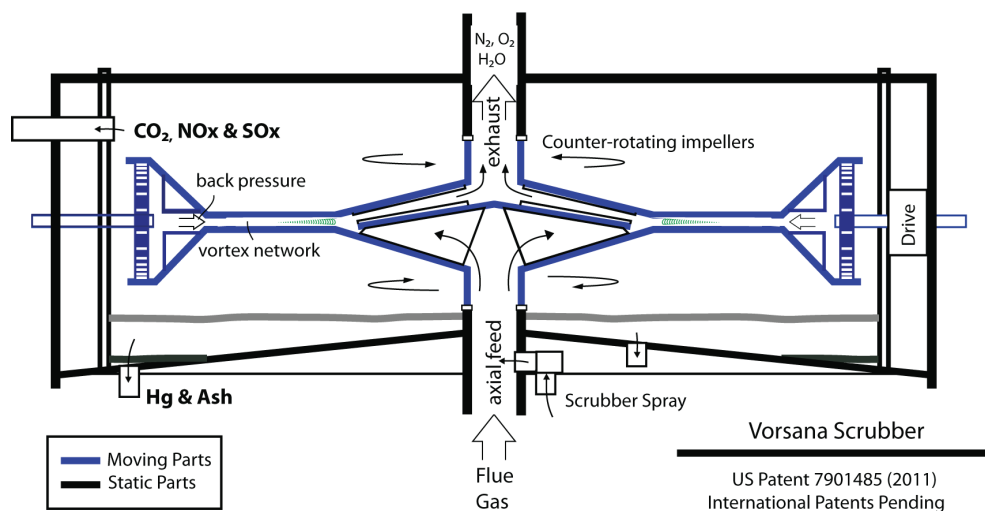


Vorsana Scrubber

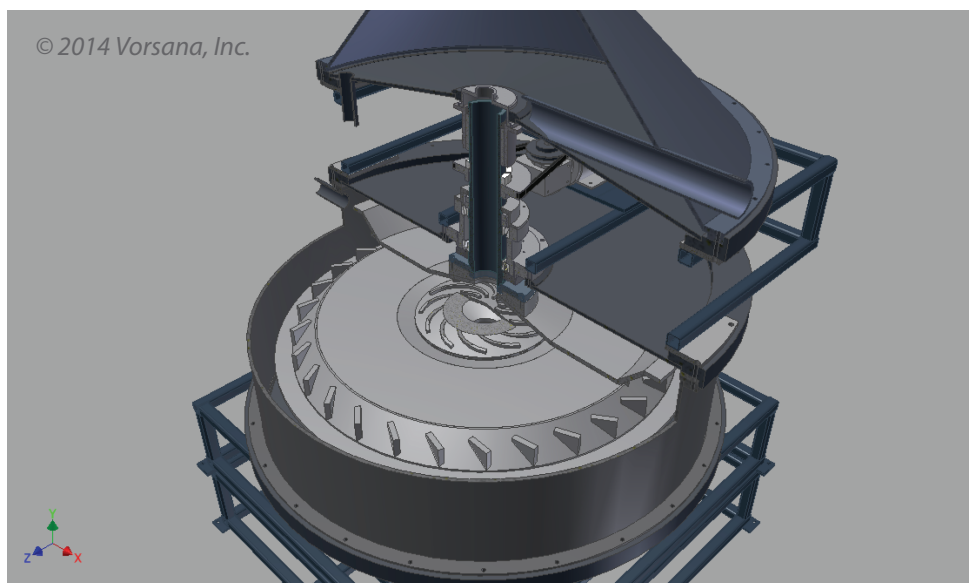
Molecular Weights	
O ₂	16
H ₂ O	18
N ₂	28
CO ₂	44
NO ₂	46
SO ₂	64
Hg	200



Capturing Particulates, Mercury and CO₂

Flue gas enters the workspace between counter-rotating disk impellers. The shear of the disk impellers create a vortex network between them. An axial suction draws the lighter fractions in the cores of the vortex network inward to the axial exhaust, while heavier components are spun out of the vortices and move away from the axis. Nitrogen, water vapor and oxygen converge inward to the axial exhaust while ash, SO_x, NO_x, and mercury are spun outward. Scrubbers can be stacked, with earlier stages featuring a scrubber spray for mercury (Hg) and particulate capture, and a later stage for completing the stripping out of the nitrogen ballast and the capturing of CO₂.

The Vorsana Scrubber is a simple and scalable device for gas separation without added heat or chemicals, with the separation of gases done by their molecular weight. This separation by weight also applies for the capture of particulates and mercury from a flue gas stream. It also represents a low-energy, low cost, alternative mechanical method of carbon dioxide capture.



Vorsana
RADIAL COUNTERFLOW SOLUTIONS

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