The characteristics of the RPS makes it possible to separate particles below 10 micrometer especially under pressure in large throughput installations.

The RPS offers economic advantages in processes as:

- Scrubbing systems
- Inlet separators
- Evaporators
- Turbo-expander suction drums
- Steam drums
- Dew-point separators
- Knock-out pots
- Compressor suction drums,
- Inert gas scrubbers
- Glycol dehydration
- MSF/MED desalination
- Sulfuric acid absorbers and dryers.

The RPS is particularly applicable to systems where reduction in size / weight is advantageous such as offshore production. The rotating equipment used in CRS eliminates the need for high structures on deck and is not affected by the motion of the platform.

In NGL and LNG plants the RPS improves efficiency by reducing liquid carry-over and equipment volume.

Thermodynamically turbo-expander cycles can be as efficient as Mixed Refrigerant cycles as todays expander efficiencies are >85%. Mixed Refrigerant cycles are usually more complex in facilities and operation.

In sour gas proccesing cryogenic distillation is considered for contamination levels of 10 % and onward. It is less expensive and requires fewer process steps and equipment.

In the process of Condensed Rotational Separation the desired point in the phase diagram is reached by the much faster process of pressure- instead of temperature distillation. The RPS can capture the resulting micron-sized particles and reduces equipment size by a factor 100.

The RPS improves efficiency and reduces size in all processes where droplets < 20 micrometer occur.

The RPS enables the use of efficient high pressure expansion processes for large throughput plants.