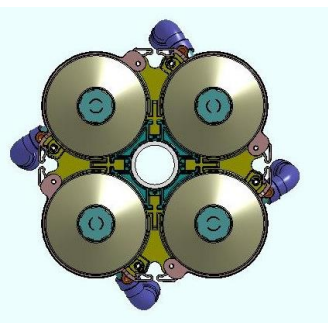


MD – Compact Turbo Separator



Overview

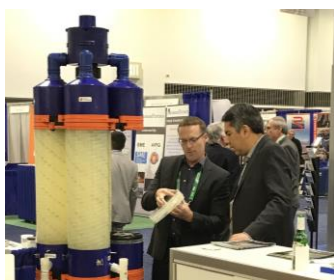
With a commitment to delivering new innovations that help customers improve mineral processing operations, our R&D team has developed the new Compact Turbo (CT) Separator offering a high performance technology that's compact and lightweight.

Launched in 2017, the CT delivers 30%+ increase in throughput capacity compared with conventional gravity spirals, as well as exceptionally high recoveries on a number of different mineral sand feed types in rougher and scavenger duties.

The small footprint and modular nature of the CT separator technology enables customers to operate more simplified concentrator plants that are capable of higher overall metallurgical performance.

Conventional flowsheets containing five, six or more spiral stages can be replaced by a three stage CT flowsheet that will provide superior metallurgy. In some cases, when combined with Mineral Technologies flagship MG12 spiral, two stages may be sufficient to achieve targets.

Synergistic advantages include lower capex plants with smaller footprints that can be readily relocated if necessary. Fewer processing stages means reduced power consumption and a decreased need for peripheral equipment such as pumps, motors, control circuitry, sumps, intermediate launders and distribution systems. Plants with fewer processing stages are easier to operate, easier to control and faster to commission.



CT On Display
SME Annual
Conference,
Minneapolis, USA
2018

Features

- Modular System with stages vertically stacked
- Number of starts per module – 3 to 6
- Number of module sets per assembled column – 2, 3 & 5
- Number of modules per set – 4
- Adjustable concentrate splitters per module – 1
- Optional fixed concentrate splitters per module – 0, 1 or 2
- No spillage and no noise due to enclosed operation
- Optional range of highly wear-resistant polymers on all operating surfaces

Design Data

Head Feed (per start)

Capacity	Up to 4.0 t/h per assembled column (typically 2.0 – 3.5 t/h/column) Note: 4 columns per assembly with a diameter of 0.7m results in 16 to 32 t/h per square meter of footprint
Pulp Density	25 to 60% solids (typically 35-45% solids)
Size Range	0.03 – 2.0mm (0.04 to 0.7mm for optimal separation. Material coarser than 0.7mm has been shown to increase wear rates in some cases)
Pulp Volume	Typically 6 – 9 m ³ /h per start, maximum 12 m ³ /h/start

Applications

The principal area of application is in a roughing or scavenging duty (low to medium heavy mineral grade).

Specific applications include:

- Mineral and Silica Sands
- Tin, Tungsten and Tantalum
- Garnet and Sillimanite
- Gold (alluvial and hard rock)

