

CT1 Separator



Overview

The CT1 is a new form of high performance separator technology that has demonstrated exceptionally high recoveries on a number of different mineral sand feed types in rougher and scavenger duties. Throughput capacity is also a major feature with increases from 30% up to whole number multiples of t/h per m² footprint compared with conventional gravity spirals.

The small footprint and modular nature of the CT1 system will result in wet plants that are greatly simplified and capable of higher overall metallurgical performance.

Conventional flowsheets containing five, six or more spiral stages may be replaced by a three stage CT1 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 cheaper 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 quicker to commission.

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)

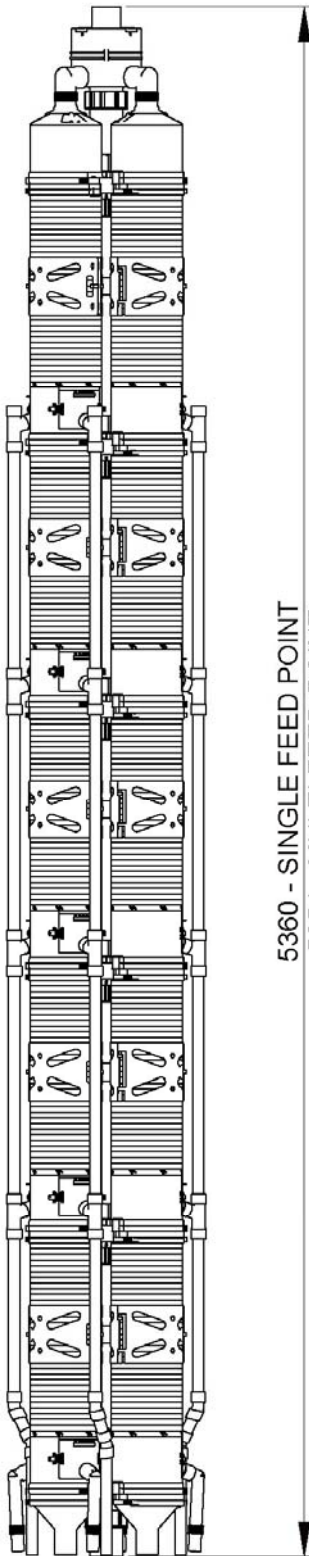
Capacity:	Up to 4.0 t/h per assembled column (typically 2.0 - 3.5 t/h/column) (note: 4 columns per assembly with a diameter of 0.7m results in 16 to 32 t/h per square meter of footprint)
Pulp Density:	25 to 60% solids (typically 35-45% solids)
Size Range:	0.03 – 2.0mm (0.04 to 0.7mm for optimal separation. 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 /start

Application

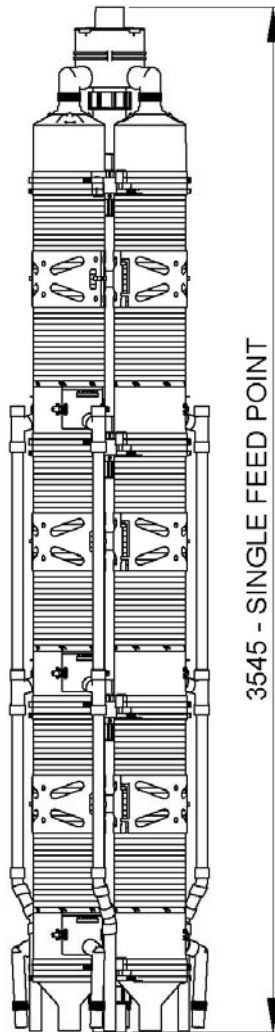
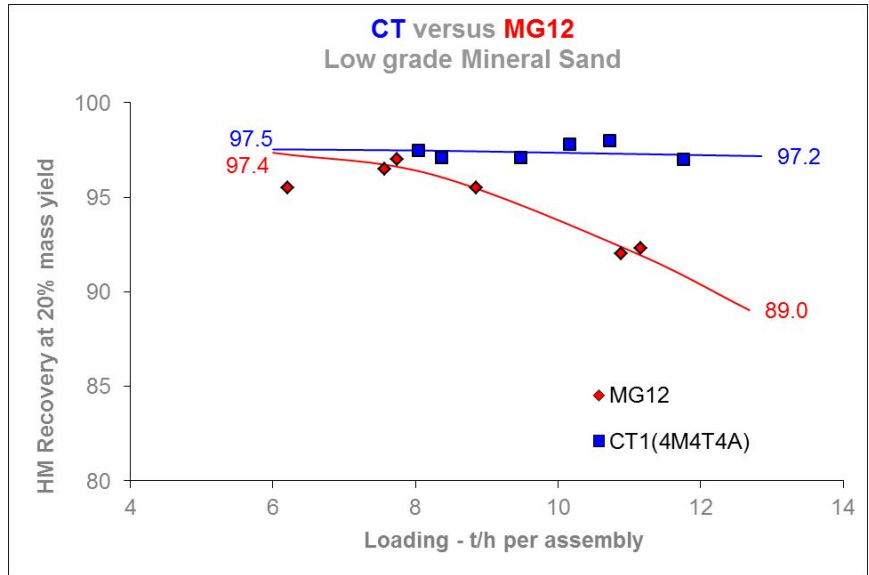
The principal area of application is in a roughing or scavenging duty (low to medium heavy mineral grade).

Specific applications include:

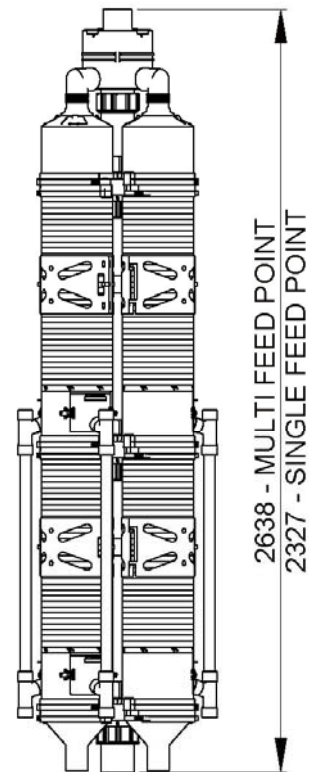
- Mineral sand
- Gold – alluvial and hard rock
- Silica sand
- Tungsten
- Tin
- Garnet
- Sillimanite
- Tantalum



PART NO. 233723



PART NO. 233720



PART NO. 233717