

GroyneTech (GT) Co Mill is used for a wide range of products and applications. It can be used for mixing and dispersing, size reducing, separating and bulk density adjustment. The typical particle size distribution (PSD) is tightly contained with the 1 mm Sieve to 0.25 mm Sieve range (18 mesh to 120 mesh), depending on the screen and impeller choices.

Traditional milling technologies do not have the same control over the PSD resulting in more fines & thus causing more of dust, whereas, in a Co Mill, the fines generated are much lesser & no dusting of materials, thus, giving a better and efficient milling result.

The infeed product falls into the conical screen chamber. A rotating impeller imparts a vortex flow pattern to the incoming material. The material is then forced to the screen surface by centrifugal acceleration ensuring continuous delivery into the “action zone” between the screen and impeller. In the “action zone” the material is sized and instantaneously discharged through the screen openings. The finished product is discharged at the bottom of the milling chamber. Particle size can be optimized by screen, impeller and speed selection.

Advantages of Co Mills:

- The output in co mill is very near to the size of the sieve used approx. 80% -90% - where as in multi mill it is 1/3 of the sieve used.**
- The fines generated are on a lower side as compared to other mills.**
- Heat generation in co mill is comparatively very low as it works as forced pressure.**
- Other mills have more of dusting as compared to co mill.**
- Savings in dust collection/explosion retention devices.**
- Minimal product loss & environmentally friendly.**
- Quick screen change, easy clean, low maintenance & flexible feeding conditions- manual, mechanical, or by close loop product transfer system.**
- Ability to achieve desired particle granulometry with PSD concept.**
- Output in co mill is more than in other mills.**
- Design is flexible as per your requirement.**
- Design is suitable for dry as well as wet milling.**



- Screen** Customize design conical screen with perforation (0.5mm to 12mm) With machine single screen will provided one screen & rest as per requirement. MOC: SS 316
- impeller** GroyneTech design conical (Half Round / Square) three blade / four blade impeller. MOC: SS 316
- Impeller Housing** Solid Cylinder constructed housing with customize flange both end, MOC: SS 316
- Discharge Port Housing** Solid Cylinder constructed housing with customize flange end, MOC: SS 316
- Knob** GroyneTech Hex Knob to hold Impeller Housing & Discharge Housing – MOC: SS 304

ELECTRICAL & INSTRUMENTATION DESGIN CRITERIA

Design Criteria	Specification
Drive Motor	1HP, 1440rpm, 3 Phase, 440VVAC, Flameproof
Customize Gear Box with be-veal Gear.	GroyneTech Design
Variable Frequency Drive	Make: Schneider / Equivalent
Manual Control System	GroyneTech Design with CE certified switch gear items & potentiometer pot for speed regulation of respective conveyor
Switches, Emergency Stop & Buzzer	Make: Tecknic& Mimic
BOX integrated with control circuit	SS 304 Control Panel
Optional: Potential Free contact	For CIP/SIP integration
FLP Limit Switch	For discharge Housing (Open/Close), Interlock
Hour meter & Volt Meter	
ELCB	Earth Leakage Circuit Breaker

MECHANICAL DESGIN CRITERIA

Sr No	Design Criteria	Specification
	Material of Construction	Contact Part: SS316L, Non-Contact Part: SS304.
	Surface finish	Inside – Mirror Finish & Outside – Matt Finish
	Gear Box	SS 304 Housing Customize design Gear Box & Driven Shaft. (Autoclavable)
	Stand	SS 304 Square Pipe Base will be provided as per drawing.
	Base Plate	12mm Surface finish Base Plate to house conical angled inlet chute & impeller chaber. MOC: SS 304