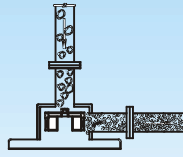
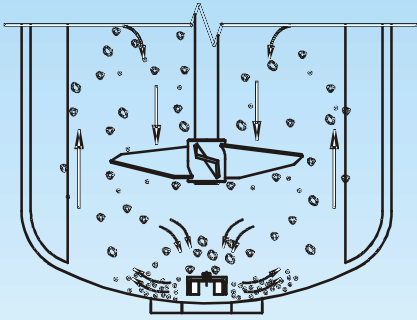


# TERMINATOR

D

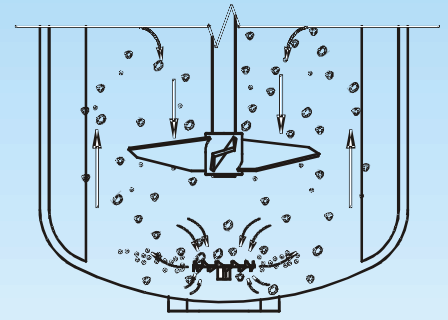
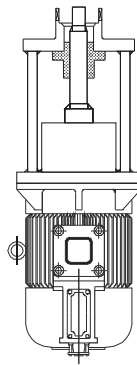


RECIRCULATION MILLING



IN SITU  
STATOR-ROTOR

A

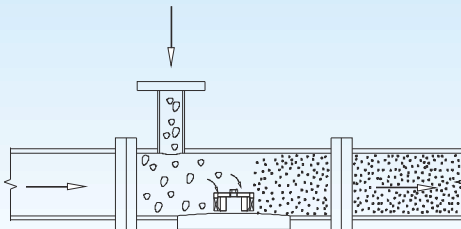


IN SITU  
COWLES

B

C

IN - LINE  
DISPERSER



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# TERMINATOR

MILLING ♦ EMULSIFICATION ♦ MICRO DISPERSION

MODE

Batch

Continuous

In Situ  
Stator-Rotor

In Situ  
Cowles

In Line  
Disperser

Recirculation  
Milling

A

B

C

D

## The Terminator

The Terminator is a System that provides extreme shear in a variety of different ways. It is a 4 machines-in-one design.

### A In Situ Stator-Rotor Mode

- 1] As a Bottom entry insertion, the Terminator enables in-situ Milling in the reactor where the solid is precipitated itself. This can delete the need for downstream milling operations in a number of processes, boosting productivity and de-bottlenecking the milling operation.
- 2] It can also be used for disintegration of agglomerates formed during the process, enabling surface renewal and speeding up mass transfer.
- 3] In immiscible liquid-liquid contacting, the Terminator can be used for emulsification as well as for stripping of product from one phase into the other.

### B In Situ Cowles Mode

- 1] It can be used as a Stand-alone high shear Disperser or Emulsifier.
- 2] It is also the ideal choice for micronisation of filamentitious materials

### C In-Line Disperser Mode

- 1] Where inline solid dispersion is required or for quick dispersion of liquids into the bulk stream (where the plug flow of Static Mixers fails), the In-line mode of the Terminator can introduce high turbulence to quickly disperse the added phase.
- 2] It can also be used to instantaneously homogenize or disperse disparate components in low residence time continuous flow streams. This is done with a relatively low pressure drop in the line.

### D Recirculation Milling Mode

- 1] This mode is used for Milling of solids in a recirculation loop. Multi pass operation enables achievement of required particle size. The system requires a hold-up tank with suspension agitator and recirculation pump. The heat generated during the milling process can be removed by incorporation of an external heat exchanger in the recirculation loop. Large volumes can be handled even with lower power when time is not a constraint with dual tank system

# Specifications

Description	Range	Remarks
Specific Gravity	0.7 to 1.4	Specify if higher required
Viscosity	Upto 15,000 cP	Specify if higher required
Temperature	-20° C to 200° C	Specify if higher required
Pressure	-1 Kg/cm2g to 10Kg/cm2g	Specify if higher required
Starting Particle / Aggl. Size	1 mm	
Max Solid % w/w	20%	
Max Solid % v/v	30%	
Stator Type		
S1	Single Row	
S2	Double Row	
S3	Triple Row	

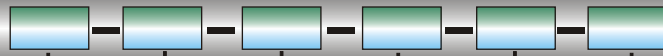
Base Model	Power		Speed	Opening Size Req'd. (ID)	Overall Height	Stato Type
Terminator 01	2.2 KW	3 HP	3000 RPM	100 mm	550 mm	S1
Terminator 02	3.7 KW	5 HP	3000 RPM	150 mm	675 mm	S1
Terminator 03	7.5 KW	10 HP	3000 RPM	180 mm	750 mm	S1, S2
Terminator 04	15 KW	20 HP	1500 RPM	300 mm	950 mm	S1, S2
Terminator 05	22 KW	30 HP	1500 RPM	300 mm	1250 mm	S1, S2, S3
Terminator 06	30 KW	40 HP	1500 RPM	380 mm	1400 mm	S1, S2, S3
Terminator 07	37 KW	50 HP	1500 RPM	380 mm	1550 mm	S1, S2, S3
Terminator 08	55 KW	75 HP	1500 RPM	380 mm	1800 mm	S1, S2, S3
Terminator 09	75 KW	100 HP	1500 RPM	450 mm	2000 mm	S1, S2, S3

## Features:

- 1] Mounting possible on any nozzle available. Minimum opening size required as above.
- 2] Terminator can be offered in any MOC
- 3] System offered is with VFD and VFD duty motor. FLP / Non FLP Local control panel with On-OFF push button and Speed indicator are provided. VFD to be mounted in MCC room.
- 4] Double Mechanical seal with flushing system is standard.
- 5] The Continuous Process modes C and D are offered with jacketed casings

# Model Designation: Terminator

## Terminator



- 1] Base Model  
e.g. 04 (from Specifications)
- 2] Mode
  - 1) In situ Stator Rotor = A
  - 2) In situ Cowles = B
  - 3) In Line Dispenser = C
  - 4) Recirculation Milling = De.g. A, B, D (If 1, 2 and 4 are required)
- 3] Safe Area = S  
Hazardous Area = H
- 4] Stator type
  - 1) Single Row = S1
  - 2) Double Row = S2
  - 3) Triple Row = S3
- 5] MOC of Wetted Parts
  - 1) SS 304L = 304L
  - 2) SS 316L = 316L
  - 3) Any other =
- 6] MOC of Non- Wetted Parts
  - 1) Standard CI / CS, Epoxy Painted = STD.EP
  - 2) SS 304 Sheet Shrouded = 304.SS



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