Superior Air Classifier

Manufacturing Superior Classified Sand

SAC

In technical collaboration

KEMCO Japan

L&T Metallurgical & Material Handling

Larsen & Toubro

Larsen & Toubro is a multi-billion dollar technology, engineering, construction, manufacturing and services conglomerate with global operations. A strong, customer–focused approach and the constant quest for top-class quality have enabled L&T to attain and sustain leadership in its major lines of business for over seven decades.

L&T Metallurgical & Material Handling

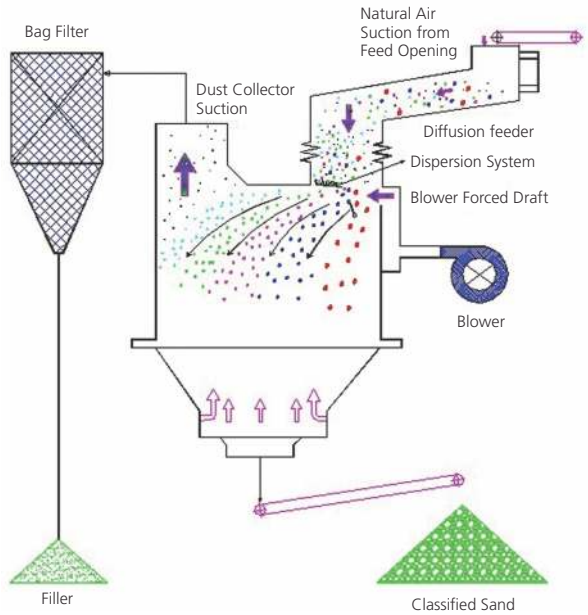
L&T is India's market leader in engineering, procurement and construction of ferrous and non-ferrous metallurgical projects, as well as Bulk Material Handling systems for core sectors. The Metallurgical and Material Handling business unit undertakes design, manufacture and supply of the complete range of crushing systems and equipment, surface miners, advanced sand manufacturing solutions, in addition to critical machinery and parts for steel and paper industries. Strategic technology alliances with global leaders in specific businesses, backed by decades of in-house engineering and manufacturing expertise, enable L&T to offer its customers superior end-to-end solutions.

Superior Air Classification Solution for Concrete Sand

L&T's Superior Air Classifier (SAC) adds value to crusher dust (0-5mm) by removing the unwanted Ultra-fines to produce concrete sand free from clay and ultra-fines. The amount of ultra-fines in the end product can be adjusted based on the required specification

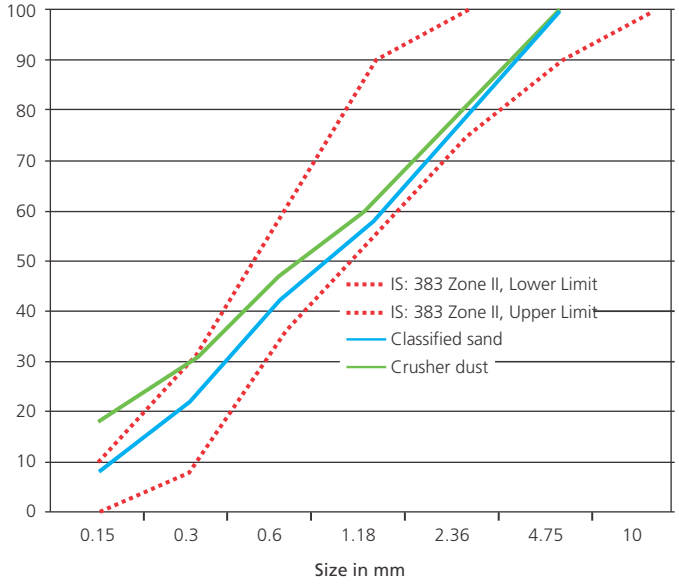
How it Works

1. Crushed Sand stone from the VSI / Tertiary Crusher (0-4.75mm) is received in the feed conveyor and fed to a diffusion feeder
2. The diffusion feeder distributes the feed material evenly across the classifier
3. Dispersion system at feed end of the classifier ensures uniform dispersion across volume of the chamber for superior classification
4. A high-efficiency blower helps forced dispersion of feed material, thereby separating finer material from coarser feed
5. The filler material is drawn into the dust collector due to the negative pressure created inside the chamber
6. To control the percentage of filler to be retained in the end product, the air volumes are adjusted suitably
7. Final classified sand is gravitated through the bottom of the chute on to a belt conveyor
8. The filler is collected into a hopper for disposal through dump trucks or can be stockpiled through a belt conveyor below bag filter



Superior Air Classifier

Classfication of Concrete



*Product classified sand to depend on feed gradation of crusher dust

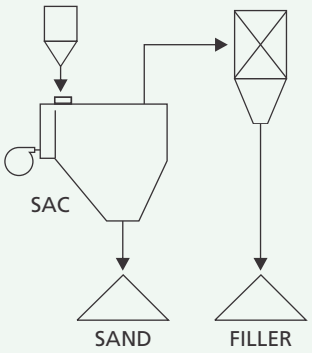
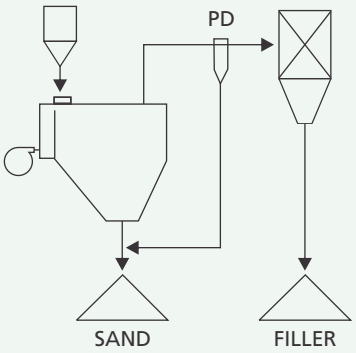
Superior Air Classifier Range

Specs. / Model No.	SAC 1600	SAC 2500	SAC 3900
Feed (mm)	0 - 5	0 - 5	0 - 5
Max. Feed (tph)	80	120	200
Dust Collector Air flow (m^3 / min)	580	800	1350
Blower Air Flow (m^3 / min)	375	540	2 x 375

The Superior Air Classification Advantage

- **Dry Classification Solution** - No more washing, settling and pressing or inefficient mechanical screen
- **More precise control of ultra-fines** - percentage of ultra - fines can be refined to further precision by adding pre-duster in circuit prior to bag filter
- Dust free and easy to maintain
- **Lower maintenance costs** - As the system does not have moving parts, it offers a higher wear cost advantage even on highly abrasive granites, quartzite and abrasive minerals
- Minimum downtime
- Automated control of the % of filler in the product

Pre Duster (Optional equipment)

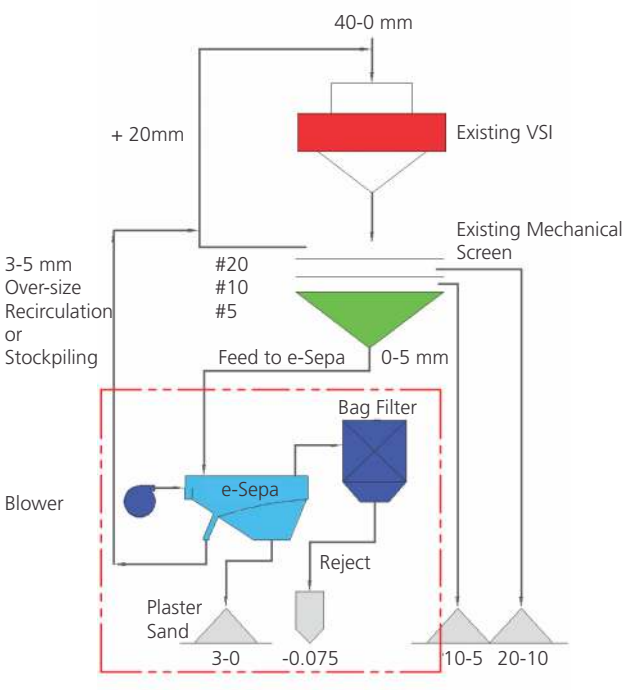
		SAC without Pre-duster	SAC with Pre-duster
			
Productivity	Sand	90%	92.5%
	Filler	10%	7.5%
-0.075 mm content in Filler		70%	85%

Pre-duster effect:

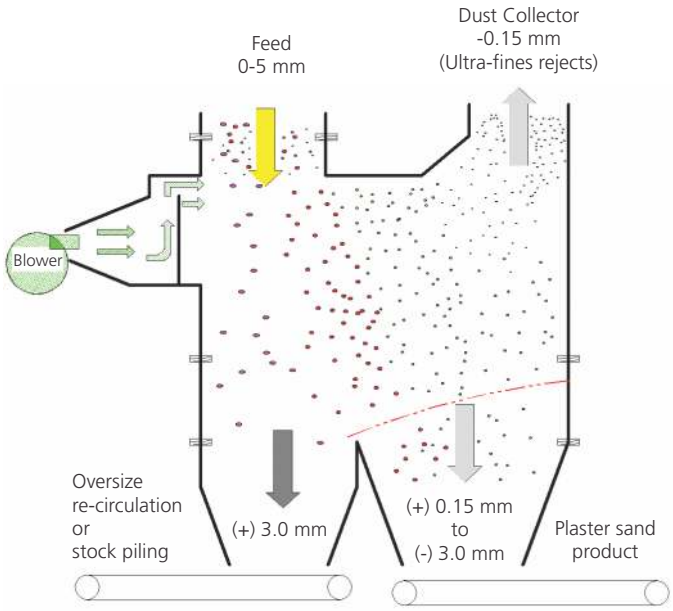
- It increases productivity of the sand product without affecting the characteristics of the ready mix concrete
- Filler collected by dust collector can be refined

Superior Air Classification with High-efficiency Screen 'e-Sepa' for Plaster Sand Applications

L&T's e-Sepa produces air classified (-) 3 mm plaster sand with precisely controlled ultra-fines as well as top size
Efficient screening can be done even at 1 mm or 2 mm to produce superfine sand for different applications



Operating Mechanism inside e-Sepa



Model Range

1. Separate 3 mm from (-) 5 mm feed

Model	Capacity	Dust collector capacity (m^3/min)
e-Sepa 1200	50	380
e-Sepa 1900	80	600
e-Sepa 2500	100	800

2. Separate 1 mm from (-) 5 mm feed

Model	Capacity	Dust collector capacity (m^3/min)
e-Sepa 1200	15	280
e-Sepa 1900	20	480
e-Sepa 2500	30	600

L&T's Range of Advanced Sand and Aggregate Solutions

e7 Sand Plant

e7 Sand Plant
e7-40 (40tph), e7-60 (60tph), e7-100 (100tph)
Manufacturing of river quality engineered sand from crusher dust

SAC

Superior Air Classifier
SAC: 1600 (80tph), 2500 (120tph), 3900 (200tph)
Air classification of sand controlling ultra-fines in crusher dust

e-Sepa

Air Screen 'e-Sepa'
e-Sepa: 1200 (120tph), 1900 (190tph), 2500 (250tph)
Screening of aggregates (0-40mm) & air-classification of sand

Vertical Shaft Impactors
VSI Dry - VS-301H, 322H, 394H
VSI Wet - VS 322HW, 394HW
Finer crushing & shaping of aggregates

CBMC/RP/062018

L&T Metallurgical & Material Handling

A brand of Larsen & Toubro Limited

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