

WE CREATE SOLUTION FOR YOUR FOUNDRY...

NO BAKE AND SILICATE SAND PROCESS EQUIPMENTS



ISO 9001: 2008 COMPANY



DESIGNER MANUFACTURER AND CONSULTANT OF
FOUNDRY & MATERIAL HANDLING EQUIPMENT



THE COMPANY



JKFE is a highly motivated and skilled organization with almost 20 years of experience supplying quality products to Indian and overseas foundry industry. Indeigeniously design and developed fully automatic no bake molding line,co2 sand molding line and green sand plants.

JKFE focusing on no bake molding line, water glass(silicate moulding, vacuum moulding and green sand moulding plant and sand reclamation plant single source for your all type sand casting foundry equipments.

Formed in 1995 by experienced technocrats of foundry industry with mission to provide low cost solutions to Indian and overseas foundry industry. Our core responsibilities covers planning, designing, manufacturing , assembling and putting in to operation of entire foundry plant.

Our expertise comes form our experienced team of engineers who are dedicated for research and development in the field of foundry technology. our product range covers all areas of foundry where sand is been used. We have wide equipments range for Green Sand, Silicate-Co2 Sand and Chemical-Resin bonded no-Bake Sand technology. we cater our customers tailor made complete solutions.

We are certified by ISO 9001:2008.

We meet the challenges of the global market with experience in consulting and design, reliability and quality of manufacturing and a comprehensive service and satisfy our customers.



WE SHAPE YOUR PROFIT BY...

- Almost 20 years foundry experience
- Wide choice of produces for small to big scale foundry
- Complete turnkey plants according to your requirements
- Plant Design and Consultancy
- Increased profit through increased productivity
- Improved Quality with low cost
- After sales service
- Project Management

NO-BAKE & SILICATE SAND MIXING

SUPER MIXER

Super Mixer (Spherical Bowl Mixer) is unlike conventional mixer-Muller for No-bake and silicate sand mixing. This Mixer consists mainly of a newly developed mixer Bowl. The mixer has a spherical construction with specially designed high-speed two action blades, which gives three-dimensional movement for thorough mixing of sand with silicate, organic binder or catalyst in any combination in just 15 to 18 sec. Models available for chemically bonded sand/silicate sand and dual capability.

Special Features

- 1 Complete mixing in short time and uses lesser amount of binders. If in your conventional mixer using 5% silicate, we ensure you that at list 1% of silicate you can save in our mixer.
- 2 Due to three-dimensional mixing at high speed, no unmixed silicate balls are there. And cause of that you can get good surface finishing of casting and save fettling cost indirectly.
- 3 Cleaning can be easily done since sand does not remaining in the mixer bowl due to bottom discharge.
- 4 Compactly designed, molding sand can be accurately supplied at any time without waste, due to lower batch capacity 15 kg to 30 kg. It is not possible in conventional mixer.
- 5 Weighing and mixing of material are automatically controlled for rationalization of work. Due to automation only one switch operation is there, so only one person or molder can operate mixer whenever needed. Result of this process leads to man power saving.
- 6 Although it is of small sized model; its capacity is comparable to large sized mixer when operated continuously.
- 7 Breakdown is minimized and maintenance is easy due to Sturdy and compact design. No need of major civil work or space.
8. Can be use as Core Sand Mixture.



Specifications

Model	SM 30	SM 100
Process	No-Bake, Silicate, Cold Box Core Shooter	
Capacity	30 kg / Batch	100 kg / Batch
Cycle Time	35 Sec.	60 Sec.
Output	2.7 TPH	6 TPH
Main Motor Power	7.5 HP / 5.5 kW	15 HP / 11.2 kW
Silicate Pump & Motor	CI Gear Pump 0.5 HP / 0.37 kW	CI Gear Pump 0.75 HP / 0.55 kW
Resin Pump & Motor	CI Gear Pump 0.37 HP / 0.25 kW	CI Gear Pump 0.5 HP / 0.37 kW
Catalyst Pump & Motor	SS316L Gear Pump 0.25 HP / 0.18 kW	
PLC Control Panel	IP 65 Box with PLC, Full Automatic System	
Sand Hopper Capacity	210 kg.	800 kg.



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ENGINEERS

NO-BAKE & SILICATE SAND MIXING

SUPER MIXER

SPECIAL SERIES



Easy Human Interface System



CONTINUOUS SAND MIXER

PORTABLE SERIES

Model	PORTABLE CONMIX 300
Through Output TPH	1-3
Main Motor Power Kw	3.70
Rasin Pump Drive Kw	0.25
Catalyst Pump Drive Kw	0.18
Sand Blending	2-way Gate

Features

- Compact designs for small foundries
- Resin catalyst tank fitted on same structure
- 200 kg. sand hopper included in structure
- Various sand blending options available with partition in hopper
- Portable nature, can move inside plant for moulding



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NO-BAKE & SILICATE SAND MIXING

CONTINUOUS SAND MIXER

CONMIX SERIES

- Rugged Design with heights wall thickness available in any other make continuous sand mixer.
- Zero sand retention program when stop.
- Carbide tips on blades for long life.
- Corrosion and wear resistance hi chrom plating on inner wall.
- Easy operator access remote for quick recipe change.
- Three standard recipes stored in program, also we could modify recipes as per customer requirement.

Features

- Optional temperature control additive blending system for slow and fast curing agent.
- Easily replaceable blade.
- Mixer opens in two half for cleaning.
- Leakage free magnet coupled pump for catalyst.
- Optional power operated mixing arm with remote.



Available with blander for new and reclaimed sand



A simple and economic design to focus on sand quality and reduce additive consumption.



TECHNICAL SPECIFICATIONS FOR PIVOTAL CONTINUOUS SAND MIXER

Model	Through Output TPH	Main Motor Power Kw	Rasin Pump Drive Kw	Catalyst Pump Drive Kw	Discharge Height MM
CONMIX 300	1-3	3.70 (Direct Drive)	0.25	0.18	1240
CONMIX 600	3-6	5.5	0.37	0.18	1400
CONMIX 1200	6-12	7.5	0.37	0.18	1520
CONMIX 2000	12-20	11	0.37	0.18	1650



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NO-BAKE & SILICATE SAND MIXING

CONTINUOUS SAND MIXER

CONMIX SERIES

BELT ARTICULATED CONTINUOUS SAND MIXER (DOUBLE AND TRIPLE ARTICULATION ARM)

Model	Through Output TPH	Main Motor Power Kw	Articulation Arm Length MM	Rain Pump Drive Kw	Catalyst Pump Drive Kw	Articulation Drive Kw
CONMIX 600	3-6	5.5 (Direct Drive)	2000/3000	0.37	0.18	1.1
CONMIX 1200	12	7.5	3000/4000	0.37	0.18	1.1
CONMIX 2000	12-20	11	3000/4000	0.37	0.18	1.5
CONMIX 3000	20-30	18/22	3000/4000/5000	0.50	0.37	1.5/2.2

- We could built mobile mixer or any custom requirement.
- Adjustable height mixers with hydraulic height adjustment arrangement.

Model	Through Output TPH	Articulated Arm Length MM	Discharge Height MM
CONMIX 1200	6-12	3000/4000	1500-2100
CONMIX 2000	12-20	3000/4000	1500-2100
CONMIX 3000	20-30	4000/5000	1600-2400

SPECIAL TYPE MIXER :

- Portable continuos sand mixer for Core shop as well as for moulding.
- With Inbuilt sand storage hopper and chemical storage tank.
- Easily movable fix on wheels or on rail.
- Directly set above your core shooter.



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NO-BAKE & SILICATE SAND MIXING

CONTINUOUS MIXER FOR SILICATE PROCESS

- Specially developed for silicate sand mixing.
- Capacity up to 15 ton per hour.
- A revolutionary development for small and mid scale foundry
- Low silicate consumption.



TECHNICAL SPECIFICATIONS FOR SILMIX SERIES

Model	Output Range Ton / Hr.	Through Drive HP / kw	Silicate Pump HP / kw	Water Pump (Optional) HP / kw
SILMIX 300	1 - 3	5 / 3.7	0.5 / 0.37	0.25 / 0.18
SILMIX 600	3 - 6	7.5 / 5.5	0.5 / 0.37	0.25 / 0.18
SILMIX 1000	6 - 10	10 / 7.5	0.75 / 0.55	0.25 / 0.18
SILMIX 1500	10 - 15	15 / 11.2	0.75 / 0.55	0.25 / 0.18

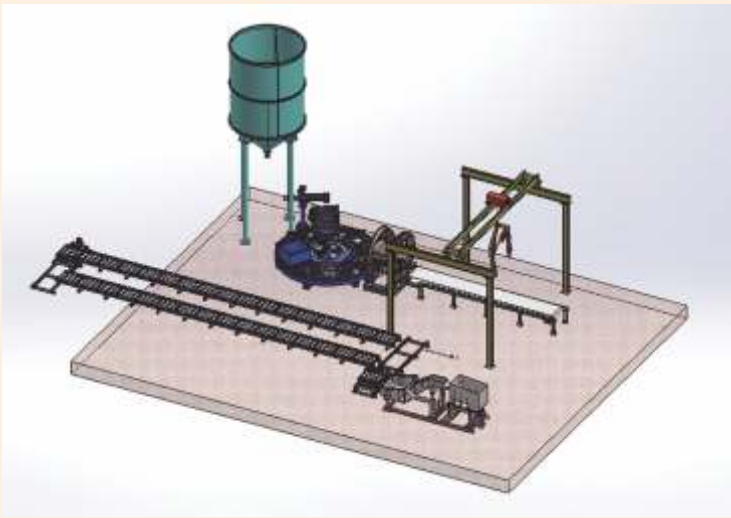
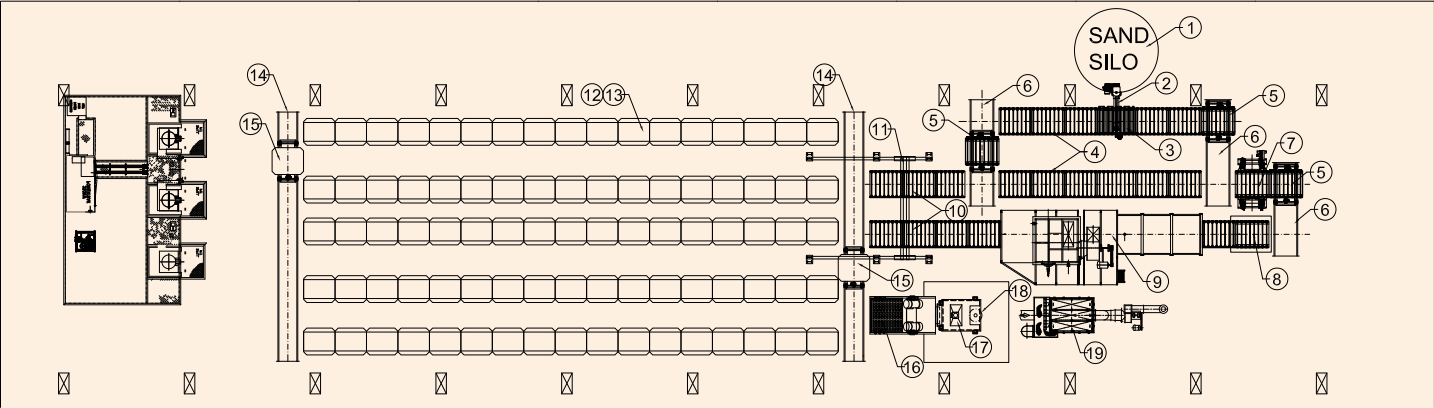
- Fully automatic PLC control with HMI.



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NO-BAKE & SILICATE SAND MIXING



**3-D LAY OUT WITH
LATEST DESIGN SOFTWARES**

FULLY AUTOMATIC FAST LOOP & CAROUSEL LINE FOR NO-BAKE & CO2 SAND PROCESS



A simple and economic design to focus on
sand quality and reduce additive consumption.

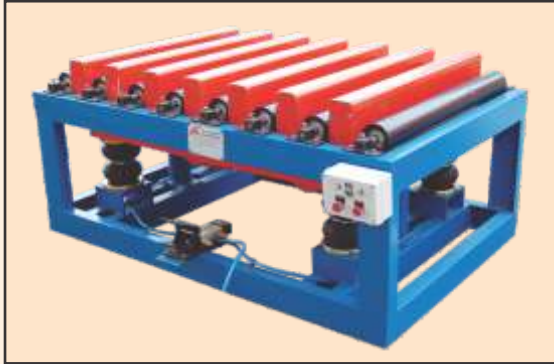


OUR PRODUCTS, YOUR SOLUTIONS



NO-BAKE & SILICATE MOULDING

COMPACTION TABLE



JKFC mould compaction table for mechanical ramming of chemical bonded as well as silicate bonded sand mould through vibration technology. By vibrating the pattern and box as it is filled with mix sand, the sand flows freely into all recesses and cavities with little or no manual ramming and makes a stronger compacted mould. This results in better casting finish and fewer defects. The table utilizes a set of roller on top which allow easy movement of the pattern box onto and off of the table. During vibration the table with pattern box lift up and isolated roller top by air rubber below. Vibration intensity and duration are controllable depending upon control options specified. Standard models as below :

- Provides fast compaction of sand mould.
- Variable speed controller (A. C. inventor) to provide flexibility for vibrations in mould weighs and sizes.
- For smooth vibration through using air rubber below (air spring) as suspension as well as vibrating table lift up and isolate from roller top.
- Several special sizes available as tailor made.



Technical Specification

Model	Size (mm.)		Vibrating Motor Power	Rubber below size	
	Length	Width		Size	Quantity
JCT 1	800	600	2 x 650 watt	4" ø x 2 C	4
JCT 2	1200	800	2 x 1000 watt	6" ø x 2 C	4
JCT 3	1500	1000	2 x 1400 watt	6" ø x 2 C	5
JCT 4	2000	1500	2 x 2200 watt	8" ø x 2 C	4
JCT 5	2500	2000	2 x 4000 watt	10" ø x 2 C	4



Flat top type compaction table for core



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NO-BAKE & SILICATE MOULDING

AUTOMATIC MOULDING LINE WITH ROLL OVER DRAW MACHINE

Automatic Moulding line Carousel and Fast loop moulding line with Automatic Mould stripping Roll over Draw.

- High productivity in small space
- Minimum man power for faster productivity
- Minimum material and pattern movement
- Trailer made sizes as per customer requirement
- Carousel unit with minimum space requirement



**Carousel unit available
upto 1200 x 1200 mm bloster plate size**

ROLL OVER DRAW MACHINE

- Hydraulic operated roll over draw machine.
- PLC operated hydraulic power pack automatic clamping and mould stripping sensors.
- Slow stripping and accelerated closing type hydraulic system for fast operation.
- O-frame and C-frame structure as per requirement of lay-out.
- Air vibrators for easy stripping of mould from pattern.
- Available sizes 500 x 500 x 150 / 150 mm to 4000 x 2500 x 1000 / 1000 mm



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NO-BAKE & SILICATE MOULDING

SAND RECLAMATION SYSTEM FOR NO-BAKE SAND PROCESS

We provide a wide range of sand reclamation plant, which can help for reducing new sand cost as well as solve environmental issues related to dumping the used sand. our reclamation plant remove controlled amount of binder layer from the sand grain.

- LD - CR series
- LD - CR Series units are available in 1 TPH and 3 TPH output capacities.
- Compact lay out minimize floor requirement.
- Compact unit with combine shakeout deck, elevator & cooler - classifier.



Low deck LD - CR Model: Range from 1-3 tph

Model	Capacity TPH	Vibratory Motor kW	FD Fan Power kW	Extraction Power kW	Deck Area mm x mm
LD - CR 01	1	3	5.5	2.2	900 x 900
LD - CR 03	3	4	7.5	3.7	1000 x 1000

LOW DECK RECLAMATION SYSTEM



- LLD series:
- 3 TPH and 12 TPH output capabilities.
- LLD series consist of a shakeout cum reclamation unit vibratory elevator and a cooler - classifier.
- Floor mounted set up with no pit.
- No separate shakeout required Inbuilt shakeout system, minimizing space requirement

Model	Capacity TPH	Vibratory Motor kw	Deck Area mm x mm	Deck Loading Capacity Kg
LLD 03	3	3 kw x 2	1200 x 1200	1250 max
LLD 06	6	4 kw x 2	1500 x 1500	2000 max
LLD 09	9	8 kw x 2	2000 x 2000	3000 max
LLD 12	12	9.5 kw x 2	2000 x 2000	5000 max

- Custom made design of deck is also available.

Low deck LLD Model: Range from 3 - 12 TPH



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NO-BAKE & SILICATE MOULDING

SAND RECLAMATION SYSTEM FOR NO-BAKE SAND PROCESS

High Level Reclamation System

- High level reclamation system is supplied with separate shakeout machine, HLT, fluidized bed cooler /classifier and other conveying equipments.
- Up to 24 TPH throughput capabilities.
- SS wedge wire screen for long life
- All sizes available for small to high production foundries

Model	Capacity TPH	Tub Capacity kg	Vibratory Motor kW	Feed Area mm x mm
HLT 03	3	600	3	1150 x 750
HLT 06	6	750	4	1200 x 900
HLT 09	9	900	8	1200 x 950
HLT 12	12	1200	9.8	1500 x 1150
HLT 15	15	1800	11.5	2000 x 1500
HLT 20	20	1800	13	2000 x 1500
HLT 24	24	1800	14.5	2000 x 1500



High Level HLT Model: Range from 3-24 TPH

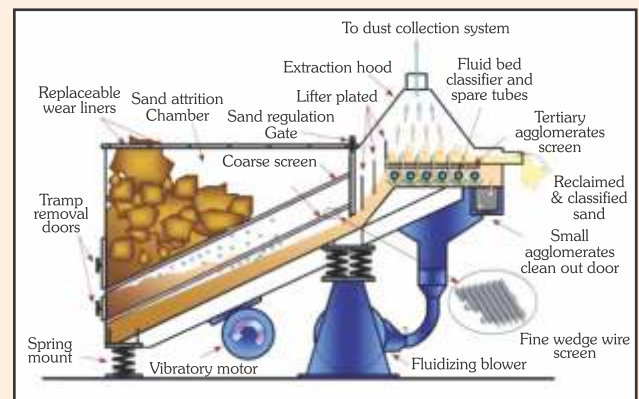
LHV SERIES SAND RECLAMATION SYSTEM (Simple, Economical & Reliable)

Attrition Unit

LHV series silicate co2 reclaim system is developed for re use the sand and cut down new sand cost. JKFE range of mechanical attrition units are available with inbuilt sand classifier for small units 1- 3 TPH units for bigger unit sand classifier is a separate module integrated with sand cooler.

Special Features

- Specially developed for Silicate Co2 sand & Chemically bonded sand.
- Attrition lump breaker
- Include triple deke screening
- Final grading via non-clogging stainless steel wedge -wire
- Replaceable liners in wear areas
- Integral sand classifier for small models.
- 1-3 TPH models available



JKFE LHV Range with integral shakeout from 1-3 TPH

Model	1	3
Through output	1 TPH	3 TPH
Power kW	3 kW	4 kW
Feed Area	750 x 1200	900 x 1400
Feed Capacity	400 kg	600 kg
Feed Height	1200	1280
Dust Extract Power kW	2.2 kW	3.7 kW
Fluidize FD Fan Power	2.2 kW	3.7 kW

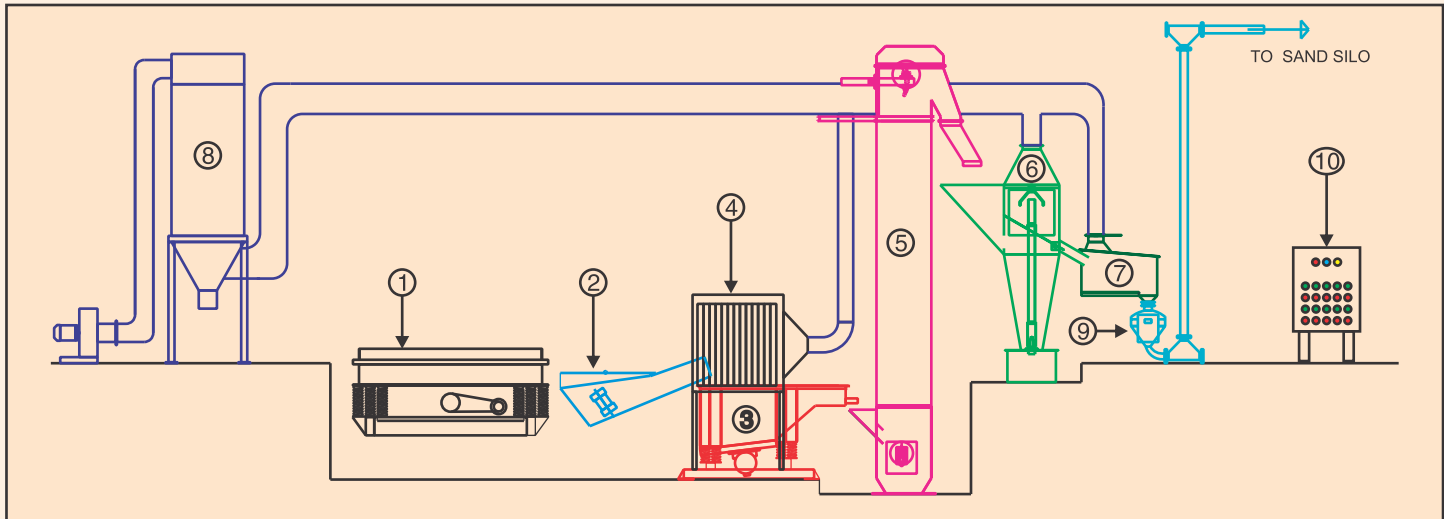


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NO-BAKE & SILICATE MOULDING

TYPICAL LAY-OUT OF SAND RECLAMATION



JKFE reclamation system includes the following equipment that are necessary for reclamation of sand.

1. Shakeout machines to separate the castings and sand from the mould.
2. Oscillating conveyer for transferring the sand lumps.
3. Primary attrition unit (HLT)
4. Dust hood for HLT
5. Bucket elevator
6. Secondary reclaimer unit
7. Fluidised bed cooler - classifier to cool and classify the reclaimed sand.
8. Dust collector
9. Pneumatic sand transporter to convey the reclaimed sand back to the sand silo above mixing station.
10. Electrical control panel

COMBINATION OF SHAKEOUT AND ATTRITION UNIT

Heavy duty knockout with inbuilt sand reclamation system



Model	Capacity TPH	Deck Size mm x mm	Maximum Loading kgs.	Vibratory Motor kW
LSCR 2520	9	2500 x 2000	9000	8 kW x 2
LSCR 2525	15	2500 x 2500	10000	9.5 kW x 2
LSCR 3025	20	3000 x 2500	12000	11.5 kW x 2
LSCR 3030	20	3000 x 3000	15000	13 kW x 2

- Any custom size as per customer requirement.



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NO-BAKE & SILICATE MOULDING

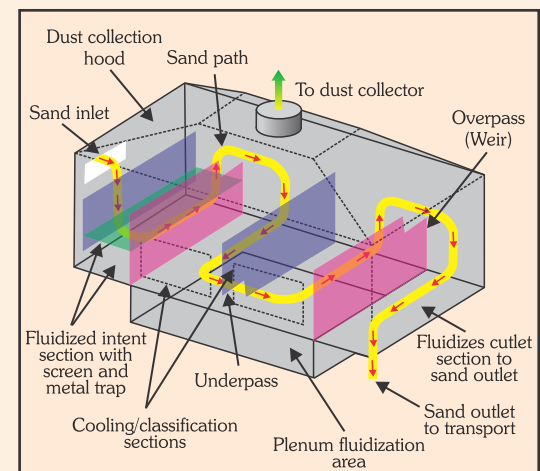
SECONDARY RECLAMATION SYSTEM

- For additional reformation of reclaimed sand
- This unit remove maximum portion of binder with out damaging sand grain.
- Economical design
- Number of pass can be determined to get desired quality
- Capacity rage 1 TPH to 10 TPH



SAND COOLER-CLASSIFIER FOR CHEMICAL BONDED / SILICATE BONDED SAND

- Specially designed for hot conditions like Asian and African continentals
- Fluid bed can effectively cool and classify reclaimed sand
- Low maintenance and effective design
- Fluidization is done with controlled amount of air flow helps to remove dust and fines from sand
- Temperature difference of 40 - 60 ° can be archived in normal conditions



Technical Specification

Model	Capacity TPH	FD Fan Power kW	Extraction Rate m ³ / h	Water Required LPM
JK SC 01	1	5.5	1500	150
JK SC 03	3	7.5	2100	300
JK SC 06	6	15	3500	500
JK SC 09	9	22	6000	800
JK SC 12	12	30	6500	900
JK SC 15	15	30	8000	975
JK SC 20	20	45	12000	1275
JK SC 24	24	30 kW x 2	15000	1620



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NO-BAKE & SILICATE MOULDING

PNEUMATIC TRANSPORTER

JKFE dense-phase pneumatic transport from 50 Ltr. to 500 Ltr. capacity, delivery up to 40 t/h. Completely automatic and manual operation to convey sand, bentonite, starch, cement and any type of dust from filters. Operating with a reduced consumption of compressed air. Much reduced maintenance.

This system utilises air pressures to move sand or other free-flowing granular materials through pipe in a dense mass at relatively low velocities. Unlike other pneumatic transporters that blow material along in a loose or lean mass at high speeds, requires less air pressure, requires no boosters along the lines and produces much less wear on pipe and pipe fittings. Transport distance up to 200 m are common.



Typical Air Consumption Data @ 6 Bar (90 PSI)

Troughput @ 100 m.	Pipe Size	30 m.		50 m.		100 m.		200 m.	
		CFM	Nm ³ /hr.	CFM	Nm ³ /hr.	CFM	Nm ³ /hr.	CFM	Nm ³ /hr.
1 TPH	2" NB	19	32.5	32	55	75	128	125	214
3 TPH	3" NB	28	48	43	73.5	95	162	175	300
6 TPH	4" NB	40	68.5	60	103	120	205	240	410
9 TPH	5" NB	70	120	100	171	250	427.5	400	684

MISCELLIANEOUS PRODUCTS

**SHAKEOUT
MACHINE**



**VIBRATORY
FEEDER**



HLT UNIT



LADLES



**FURNACE
SCRAP CHARGER**



LLD UNIT



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OUR RANGE OF PRODUCTS

KNOCK OUT MACHINE	BUCKET ELEVATOR
SAND MULLER AND MIXER	MOLTEN METAL HANDLING SYSTEM
INTENSIVE MIXER	POURING LADLES
CONTINUOUS MIXER	FURNACE CHARGING SYSTEM
MOULDING MACHINE	SKIP CHARGER
COMPACTION TABLE	HEAT TREATMENT FURNACES
VIBRATING FEEDERS	SURFACE TREATMENT EQUIPMENTS
SAND SHEAVER	SHOT BLASTING MACHINE
SAND COOLER	LADLE PRE-HEATER
SAND DRIERS	MAGNETIC PULLEYS
MOULD HANDLING SYSTEM	MATERIAL HANDLING EQUIPMENTS
PALLET CONVEYORS	CO2 GAS MANIFOLD SYSTEM
ROLLER CONVEYORS	FURNACE LINING EQUIPMENTS
SAND REGENERATION PLANT	BELT CONVEYOR

OUR SPECIALITIES

- MANUFACTURING IN DIFFERENT CAPACITIES TO SUIT THE PURPOSE
 - AFFORDABLE ECONOMICAL PRICE
 - WELL DESIGNED FOR EASY MAINTENANCE
 - STURDY CONSTRUCTION
 - HIGHLY PRODUCTIVE
 - TAILOR MADE EQUIPMENTS
 - TURNKEY PROJECTS



J. K. Engitech Pvt. Ltd.

**DESIGNER MANUFACTURER AND CONSULTANT OF
FOUNDRY & MATERIAL HANDLING EQUIPMENT**

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