



SANTOSH ENGINEERING WORKS



Trusted Supplier Since 1993



11, Gali No. 1, Gurukul Indraprasth,
Sarai, Faridabad-121003, Haryana

SANTOSH ENGG. WORKS
M. 9810213744,
9891212244, 9818217844



 9810213744, 9891212244

 santoshenggworks2011@yahoo.com



About Us

Santosh Engineering Works (SEW), founded by Santosh Kumar in 1993, is based in Faridabad, Haryana, India. With extensive industry experience and broad exposure, the company has built a reputation for excellence in its field over decades of dedicated service.



Late Shri Santosh Kumar (1967-2018)

Santosh Engineering Works (SEW) proudly serves clients across India by manufacturing premium stone crushing plants, equipment, and their spares to ensure complete customer satisfaction. SEW produces a wide range of machinery including Primary Jaw Crushers, Secondary Granulators, Roll Crushers, Belt Conveyors, Vibrating Screens, Vibrating Grizzly Feeders, Rotopactors, Sand Classifiers, and Hydro Cyclones, all available in various sizes and designs tailored to specific customer requirements.

Santosh Engineering Works (SEW) specializes in manufacturing stone crushing plants with production capacities ranging from 20 TPH to 200 TPH, customized to meet the specific requirements of each customer.



Products

01 **Jaw Crusher (Primary Machine)**

02 **Granulator (Secondary Machine)**

03 **Vibrating Screen**

04 **Vibrating Grizzly**

05 **Roll Crusher (Bearing Type)**

06 **Rotopactor**

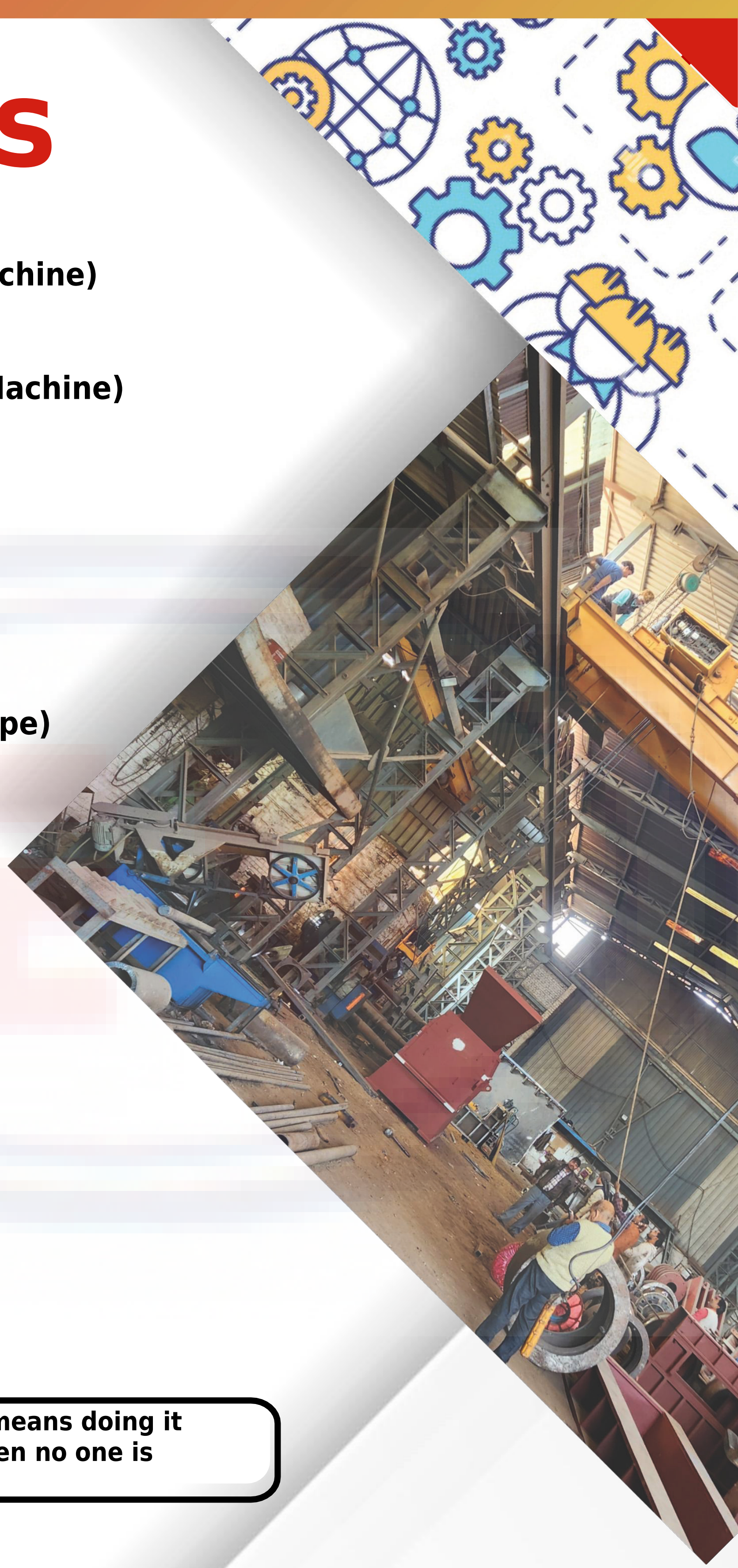
07 **Steel Hopper**

08 **Vibro Feeder**

09 **Washer** (i) Classifier
(ii) Hydrocyclone

10 **Belt Conveyors**

Quality means doing it
right when no one is
looking.



Jaw Crusher Machine

A **Jaw Crusher** is a heavy-duty machine designed to reduce large rocks or ore into smaller, manageable sizes such as gravel. It operates by using compressive force between two steel jaws—one fixed and the other moving in a rocking motion. This mechanism allows efficient crushing of hard materials and is widely used in mining, quarrying, recycling construction waste, and other material processing industries.

We Manufacture Two Types Of Jaw Crusher

1. Double Toggle Jaw Crusher
2. Single Toggle Jaw Crusher



1. Double Toggle Jaw Crusher (Primary Jaw Machine)

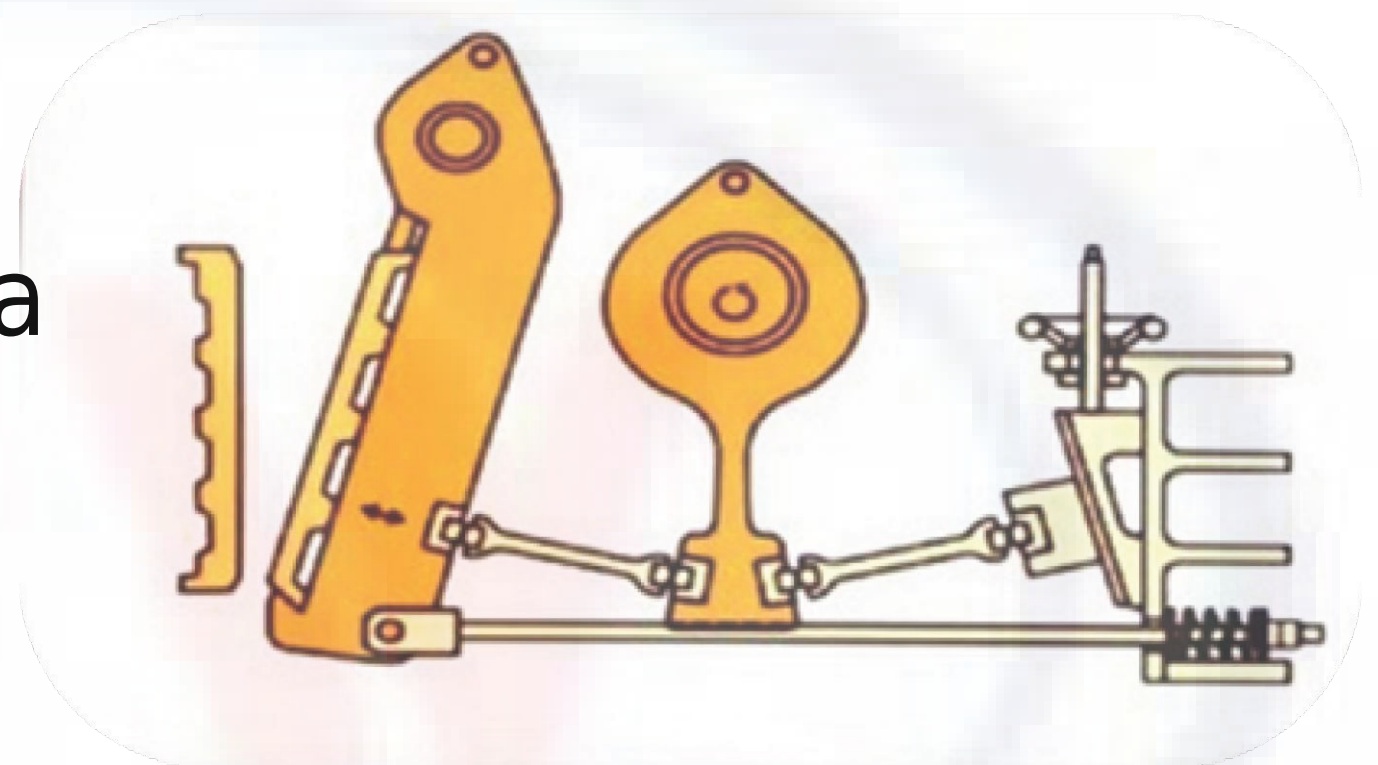


1. Crushing Mechanism:

Material is crushed between a fixed jaw plate and a moving (swing) jaw plate made of manganese (MN) steel.

2. Motion Generation:

The swing jaw moves due to a toggle plate driven by a pitman connected to an eccentric shaft.



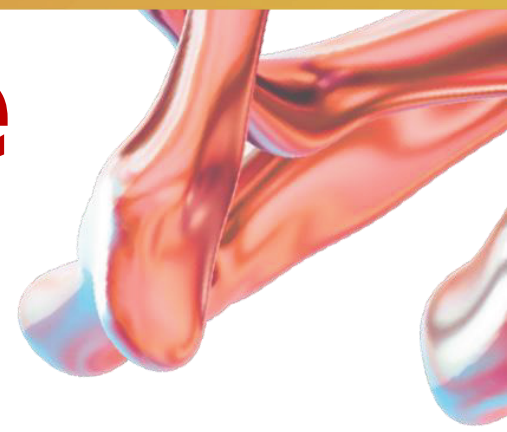
3. Power Source:

The eccentric shaft rotates via a flywheel powered by a V-belt connected to an electric motor or diesel engine.





Key Features of Double Toggle



- ✓ **Strong Body Construction**
The main frame is built from high-quality mild steel (M.S.) plates and reinforced with both vertical and horizontal members for superior strength and durability.
- ✓ **Lever Assembly:**
Fabricated from mild steel or cast iron. Includes M.S. pipe, pins, and high-quality bushes for smooth operation.
- ✓ **Pitman Assembly:**
Made of mild steel and houses the eccentric shaft and toggle bearings. Designed for efficient transfer of crushing force.
- ✓ **Jaw Plates:**
Manufactured from Manganese Steel (12-14% Mn) as per IS: 276 Grade II standards, ensuring long life and wear resistance.
- ✓ **Toggle Bearings:**
Made of cast manganese steel or fabricated from high-grade steel to withstand heavy-duty performance.
- ✓ **Flywheels**
Two flywheels – one for rotation (driven by the motor) and the other for counterbalance to ensure smooth operation.
- ✓ **Toggle Block and Viz Block:**
Made from machined cast iron. These components regulate the thrust generated by the pitman and help adjust the swing jaw plate's stroke.
- ✓ **Lubrication System:**
Equipped with self-aligning double spherical roller and cylindrical bearings. Grease-lubrication points are provided for all critical parts, with greasing recommended every 10 days to maintain performance.



3. Single Toggle Jaw Crusher (Primary Jaw Machine)

Mechanism and Structure:

Single jaw crushers use one toggle that extends from the bottom of the swinging jaw to a point behind the crusher. Unlike double toggle jaw crushers, single toggle versions have fewer shafts and bearings, making them mechanically simpler.



Eccentric Placement and Motion Advantage:

In single jaw crushers, the eccentric is located at the top of the swinging jaw, which gives a mechanical advantage. This position allows the jaw to perform two motions at the same time — it swings like a door and also moves up and down, a feature that distinguishes it from double toggle crushers.



Key Features of Single Toggle

- ✓ **STRONG BODY CONSTRUCTION:**
 - Made from tested mild steel (MS) plates.
 - Welded construction with proper reinforcements for durability
- ✓ **HIGH-STRENGTH SWINGING LEVER (PITMAN):**
 - Fabricated from high-tensile MS plates.
 - Heat-treated (annealed) and precision-machined for smooth crushing strokes.
- ✓ **DURABLE CRANKSHAFT AND BEARINGS:**
 - Crankshaft is made of forged steel.
 - Fitted with heavy-duty spherical double roller bearings for smooth operation.
 - Two bearings are mounted on the crankshaft and two on the swinging lever, all well-sealed against dust.
- ✓ **HIGH-PERFORMANCE JAW PLATES:**
 - Made of high-tensile manganese steel.
 - One jaw plate is fixed; the other is mounted on the swinging lever.
- ✓ **ADJUSTABLE JAW SETTING:**
 - Jaw setting is adjusted with a tie rod at the bottom of the swing jaw stock.
 - Adjustment can be made easily without stopping the machine.
- ✓ **ROBUST FLYWHEELS AND COMPLETE ASSEMBLY:**
 - Balanced cast iron flywheels on both ends ensure steady crushing.
 - Supplied with all essential parts: side plates, toggle system, wedge block, and foundation bolts.



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GRANULATOR (SECONDARY JAW MACHINE)

Santosh Engineering Works (SEW) manufactures granulators in various sizes as per the requirements of its customers. These machines are used as secondary jaw crushers. SEW provides these granulators in both single toggle and double toggle types, depending on the application and customer needs. The design ensures efficient performance and durability in secondary crushing operations.



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& Screening Solutions Since 1993



CAPACITY AND POWER CHART

Capacity And Power Chart For Jaw crusher (**Primary jaw Machine**)

MODEL	FEED OPENING SIZE (INCH)	FEEDING SIZE (INCH)	CAPACITY IN TONS/HOUR WITH CLOSED SIDE SETTINGS													RPM	MOTOR REQUIRED (H.P)	
			40 MM	50 MM	63 MM	75 MM	80 MM	90 MM	100 MM	125 MM	150 MM	175 MM	200 MM	225 MM	250 MM			
JC-12X7	12"X7"	5"	12	18	20												325-350	20
JC-16X9/10	16"X9"/10"	7/8"	14	20	24												325-350	25
JC-20X10/12	20"X10"/12"	8/10"	16	22	26	30											325-350	30
JC-24X12/15	24"X12"/15"	10/12"	20	26	30	34											300-325	40
JC-30X15	30"X15"	12"	24	36	40	50											300-325	50
JC-30X20	30"X20"	18"	24	36	40	50	60										300-325	50
JC-32X20/22	32"X20"/22"	18/20"	30	40	50	60	70	80	90	100	110						280-300	60
JC-36X24	36"X24"	22"							100	120	140						260-280	75-100
JC-36X30	36"X30"	27"								125	145	150	160				260-280	100-125
JC-36X32	36"X32"	29"								135	150	160	170				260-280	100-125
JC-42X30	42"X30"	27"								150	180	190	200				240-260	125-150
JC-42X36	42"X36"	32"								150	180	190	200				240-260	125-150
JC-48X36	48"X36"	32"								180	210	230	250	275	300		240-260	150-175

Capacity And Power Chart For Granulator (**Secondary Jaw Machine**)

MODEL	FEED OPENING SIZE (INCH)	FEEDING SIZE (INCH)	CAPACITY IN TONS/ HOUR WITH SIDE SETTINGS							RPM	MOTOR REQUIRED		
			40 MM	50 MM	63 MM	75 MM	100 MM	125 MM	150				
JC-24X6	24"X6"	3"-5"	15	20	25							325-350	25-30
JC-30X6	30"X6"	3"-5"	18	22	26							325-350	30-40
JC-36X6	36"X6"	3"-5"	20	24	28							325-350	40-50
JC-36X8	36"X8"	4"-6"	25	30	35	35-40						325-350	40-50
JC-42X6	42"X6"	3"-5"	30	35	38							325-350	50-60
JC-42X9	42"X9"	5"-7"	35-40	40-45	45-50	40-45						325-350	50-60
JC-48X6	48"X6"	3"-5"	35-40	40-45	45-50							300-325	60-75
JC-48X9	48"X9"	5"-7"	45-50	50-55	55-60							300-325	75-100
JC-48X10/12	48"X10"/12"	6"-8"/10"	50-60	65-70	70-75	75-80	80-85	85-90	90-95			275-300	75-100
JC-48X15	48"X15"	12"	60-70	70-75	75-80	80-85	85-90	90-95	95-100			275-300	75-100



Vibrating Screen

Santosh Engineering Works (SEW) offers a wide range of Vibrating Screens designed to meet diverse customer needs.

- **Single Deck**
- **Double Deck**
- **Triple Deck**
- **Four Deck**
- **As per customer needs**



Robust & Heavy-Duty Design:

Built to handle tough working conditions
Suitable for continuous operation in demanding environments

Working Principle:

Operates on the principle of circular motion for effective screening and separation.

Low Maintenance & Long Life:

Designed for long-lasting performance
Maintenance-free operation ensures reduced downtime





Features Of Vibrating Screen

01 Robust Mainframe Construction

- The mainframe is fabricated using MS plates, angles, and pipes.
- It is a welded construction that includes the feed and discharge hoods as integral parts of the structure.

02 Efficient Screen Plates

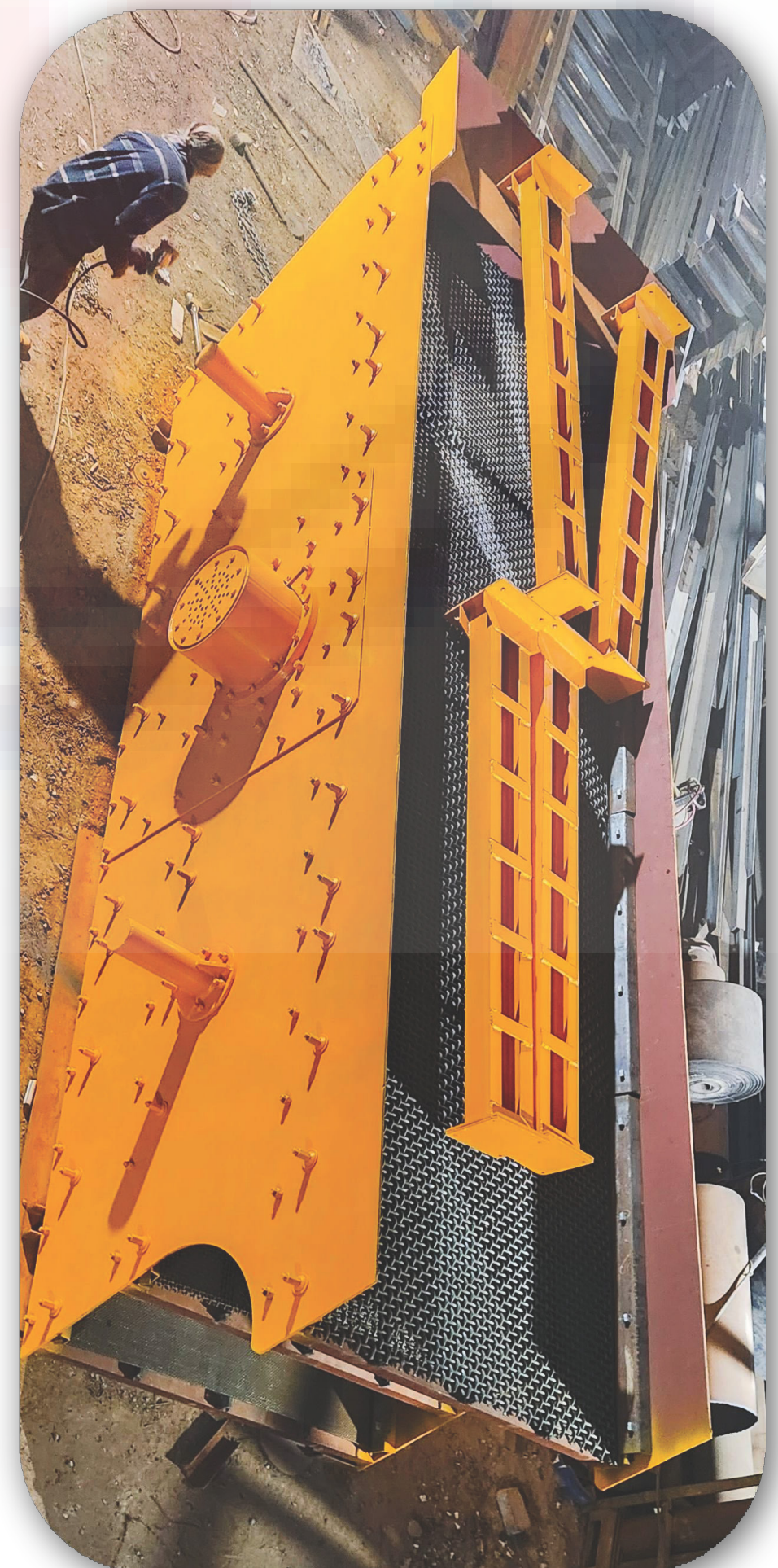
- Screen plates are made from drilled or perforated sheets of appropriate sizes.
- Designed for accurate separation of the desired material fractions.
- Plates are bolted to cross members connected to the screen's side plates using lock washers or U-clamps for secure fastening.

03 Advanced Vibrator Assembly

- Consists of a shaft with unbalancing weights, V-pulley, heavy-duty bearings, bearing housing, and a central pipe casing.
- Shaft is mounted on totally enclosed, grease-lubricated bearings to ensure smooth operation and extended service life.

04 Durable Vibrator Body

- Fabricated from pipe with bolted end plates and housings.
- The housing is bored to fit bearings precisely, while the shaft is enclosed within the assembly and secured with covers.
- The bolting plate is firmly fixed to the screen frame, ensuring stable vibration.



VIBRATING GRIZZLY FEEDER

A Vibrating Grizzly Feeder (VGF) is a crucial component in a crushing and screening plant, typically installed between the hopper and the primary jaw crusher. It plays a dual role in enhancing the overall efficiency of the crushing process.

Key Functions:

- Smooth and controlled feeding to the primary jaw crusher
- Pre-screening of natural fines or scalp material
- Reduces load on the primary crusher
- Handles impact from large boulders efficiently
- Maintains consistent vibration under heavy load



Designed for Heavy-Duty Applications:

- Built to handle extreme loads and high impact from large-sized boulders dropping from the hopper.
- These boulders fall at considerable speed and weight, making the design resistant to abrasion and shock.

Superior Vibration Handling:

- Ordinary feeder often struggle with vibration dampening caused by large boulders.
- Ours Grizzly Feeders are specially designed to overcome this challenge, ensuring consistent vibration and material movement even under the heaviest loads.

Ideal for Harsh Environments:

- Perfect for quarrying, mining, and riverbed material handling.
- Offers durability, low maintenance, and maximum uptime in tough working conditions.



Capacity And Power Chart For Vibrating Grizzly Feeder

modal	Size(feet)	Basket length(feet)	Basket width(feet)	Motor with 1440 rpm
gz6x3	6x3	6	3	10
gz8x4	8x4	8	4	15
gz10x4	10x4	10	4	15
gz12x5	12x5	12	5	25
gz14x5	14x5	14	5	25
gz16x5	16x5	16	5	30

Capacity And Power Chart

ROLL CRUSHER (DUST MACHINE - BEARING TYPE)

Working Principle:

- The Roll Crusher consists of two large cylindrical rollers mounted horizontally. As rocks, ores, or other materials pass between these rollers, they are crushed into smaller particles.
- The rollers are mounted on bearings and connected with couplings for smooth operation.
- One roller is fixed, while the other is spring-loaded and movable, which acts as a safety mechanism in case uncrushable material enters—preventing damage to the machine.

Features of Roll Crusher:

- **Crushing Mechanism:**

Two parallel rollers rotate in opposite directions, crushing material between them. One roller remains stationary, while the other is adjustable for controlling output size.

- **Material of Rollers:** Rollers are made from chilled iron, high carbon steel, or manganese steel to ensure durability and strength.
- **Strong Frame Construction:** The frame is a box-type structure made from MS plates. Reinforced with steel ribs for added strength. Base feet made from MS square sections, riveted to the main frame for stability.
- **Easy Maintenance:** Top and side plates are bolted, not welded, allowing for easy access during maintenance or part replacement.

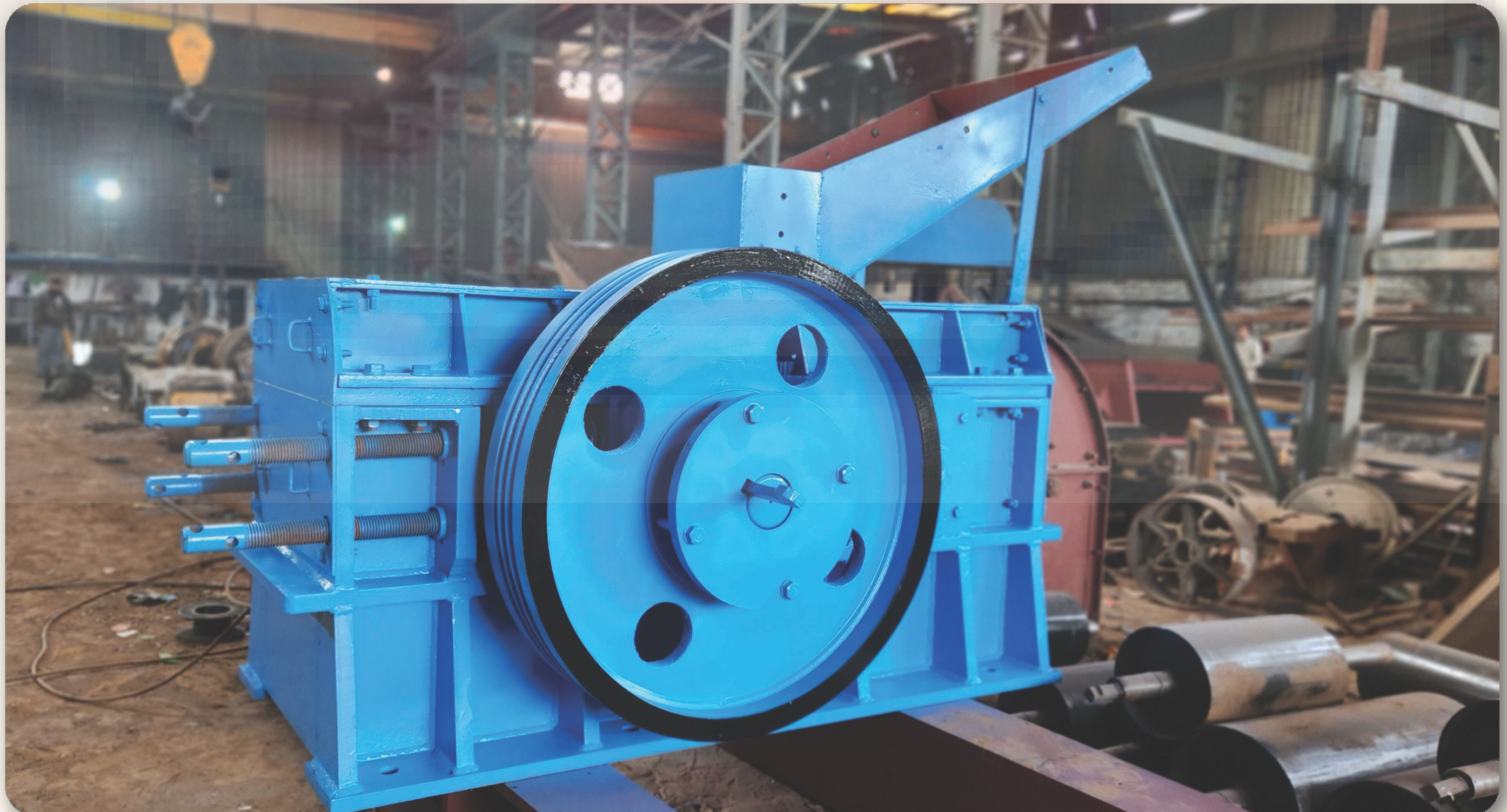




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Roll Crusher Capacity and Power Chart

Roller Crusher Size (inch)	Roller Diameter (inch)	Roller Diameter (mm)	Roller Width (inch)	Roller Width (mm)	Capacity (TPH)	RPM	Motor HP
24x16	24	600	16	400	8-10	110-125	15
30x18	30	750	18	450	12-15	110-125	30
24x24	24	600	24	600	15-17	110-125	30
40x20	40	1000	20	500	25-40	110-125	50-60
48x24	48	1220	24	610	35-45	110-125	75
48x30	48	1220	30	762	55-60	110-125	100



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Rotopactor (Horizontal Shaft Impactor)

The Rotopactor is a high-speed rotary crusher, ideal for producing cubical, non-flaky aggregates. It is widely used in the secondary or tertiary stage of stone crushing plants and is highly preferred for road (NHAI) and dam construction work.

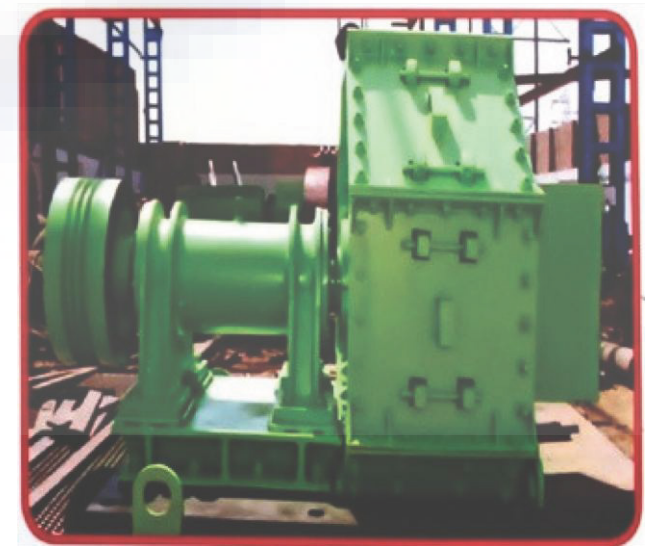
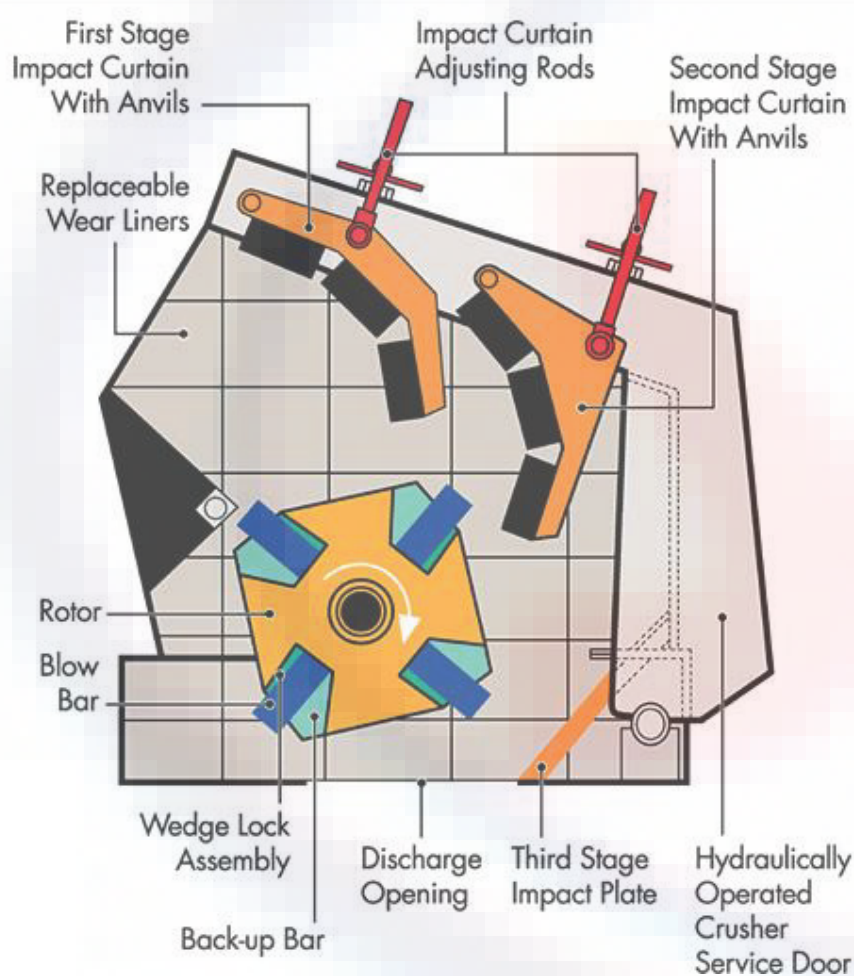


Working Principle:

- Material fed into the center of high-speed rotor (1000-1200 RPM)
- Centrifugal force throws material to breaker liners
- Crushing occurs by stone-to-metal impact

Key Features:

- High Throughput Capacity
- Produces cubicle-shaped aggregates with minimal fines
- Multiple manganese tool profiles available for rotor
- Adjustable settings to change product size as needed
- Ideal for river gravel crushing and construction-grade materials



Capacity And Power Chart

Model NAME	Production In Tons / Hour	Feed Range (MM)	Output Range	Motor H.P.
RHSI 600x400	15 - 20 Tons	Upto 375 MM	0.5 - 10 MM	40 HP
RHSI 800x800	30 - 40 Tons	Upto 600 MM	1 - 10 MM	50 - 60 HP
RHSI 1200x1200	80 - 100 Tons	Upto 600 MM	1 - 20 MM	100 - 125 HP
RHSI 1400x1400	125 - 150 Tons	Upto 600 MM	1 - 30 MM	150 - 200 HP
RHSI 1600x1600	175 - 225 Tons	Upto 600 MM	1 - 40 MM	200 - 225 HP
RHSI 2000x2000	250 - 300 Tons	Upto 800 MM	1 - 50 MM	250 - 300 HP

Belt Conveyors

Overview:

- Manufactured by Santosh Engineering Works (SEW) in various sizes and designs as per site space and customer requirements.
- Used for material transfer in different stages like:
 - Feeder Conveyor
 - Return Conveyor
 - Delivery Conveyor

Components Include:

- Conveyor frame, joint plates
- Drum pulleys (Head & Tail)
- Counter shaft, V-belt pulley, bearings
- Gear with pinion
- C.I. rollers (Kuppa) with UCP
- Indian frame with rollers & bearings
- Motor stand, nylon or rubber belts

Frame Sizes Available:

- 24", 30", 36", 42", 48", 52" widths Frames made using various channel sizes

Complete System Includes:

- Drum pulleys, return & impact rollers
- Motor, motor stand, joint plates
- Conveyor belt, gearbox, and more
- All components are manufactured in-house by SEW with full quality control.



Steel Hopper

Purpose:

- Used for unloading raw materials from trucks.
- Feeds materials into the Primary Jaw Crusher via vibrating feeder.

Features:

- Made from high-strength steel plates.
- Reinforced with fabricated steel structure for durability.
- Designed to ensure continuous flow of material till the last

Capacities:

- 30 Ton
- 50 Ton
- 100 Ton
- 150 Ton



SAND CLASSIFIER (SPIRAL SEPARATOR)

Overview:

- Wet classification separates solids and liquids based on particle size or density, not by screening.
- It is an effective solid-liquid separator, commonly known as a spiral classifier.

Working Principle:

- Operates in a fluid pool (pulp) inside a tank.
- Coarse solids settle at the bottom and are removed mechanically.
- Fine particles remain suspended and are discharged as overflow.
- Upgrades material by 2-3%, improving the final product quality.

Product Range Includes:

- Spiral Classifier
- Industrial Spiral Classifier
- Spiral Separator
- Solid-Liquid Separator

Key Features:

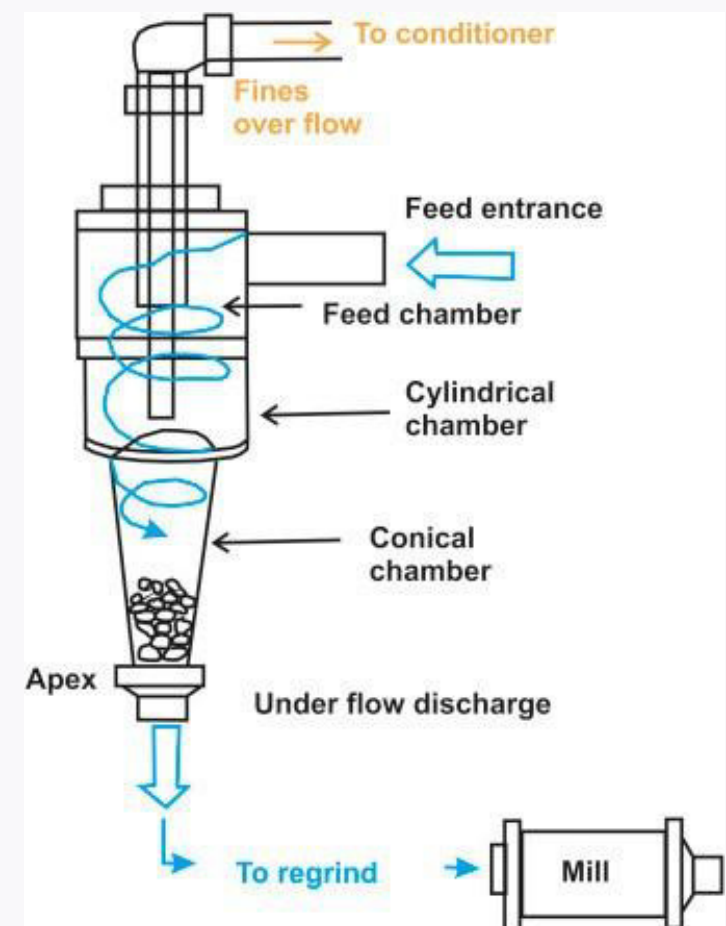
- Fabricated using high-quality raw materials from trusted vendors.
- Available in various designs to suit different material separation needs.
- Ideal for improving sand quality in crushing and screening plants.



HYDRO CYCLONE

Overview:

A Hydro Cyclone is a device used for separating particles from a liquid suspension based on size and density. It works using centrifugal force to classify, separate, or sort materials in slurry (liquid + solids).



Working Principle:

- Slurry is fed into the cyclone at high speed through a tangential inlet.
- Centrifugal force causes heavier particles to move outward and downward in a spiral path (discharged through underflow).
- Lighter particles move upward and exit through the overflow outlet.

Key Features:

- No moving parts - low maintenance
- Efficient solid-liquid separation
- Compact and space-saving design
- Widely used in:
 - Sand washing plants
 - Mineral processing
 - Sludge removal
 - Industrial wastewater treatment

Separation efficiency (depending on particle size and feed pressure)

80-95%	
Solids recovery in underflow	85-95%
Fines removal in overflow	70-90%





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Why Choose SEW?

- In-house manufacturing for all key components
- Custom solutions tailored to your plant space
- Rugged and reliable machinery for long service life
- Strong service & support team

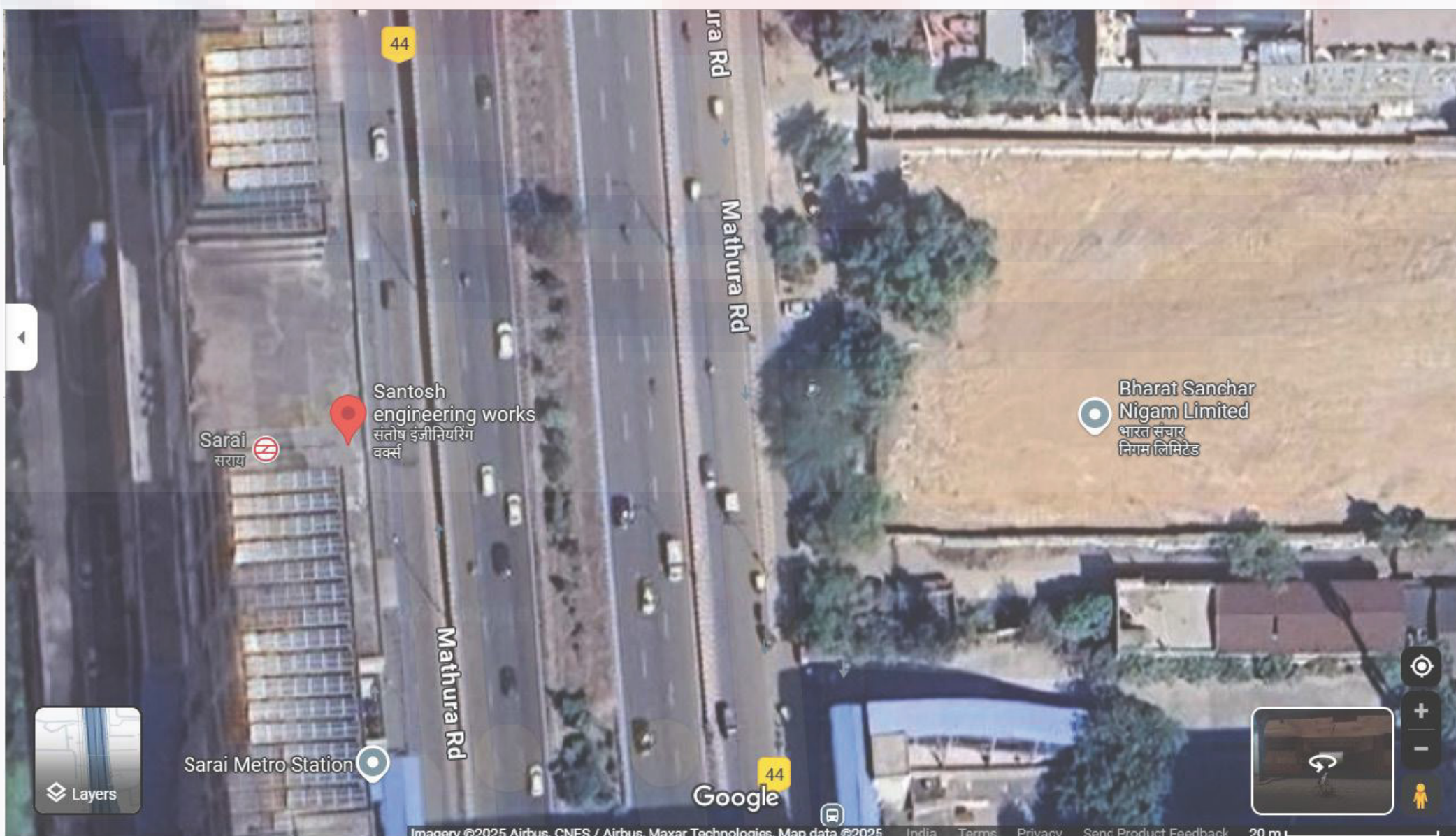
100%
in-house
manufacturing
ensures quality
control

90%
repeat clients for
long-term
business
reliability

95% on
-time delivery
installation
across India
service

100%
Grievances
redressal
mechanism

LOCATION MAP



Scan Me For
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Reach Us Out For high-quality stone crushing plants, equipment, and spares, reach out to us.



 **SANTOSH ENGINEERING WORKS, 12/6, PLOT NO. 11, GALI NO. 1, DAYAL NAGAR ROAD NEAR RAILWAY FATAK, GURUKUL INDRAPRASTH SARAI, SECTOR 38, FARIDABAD-121003, HARYANA, INDIA**

 **santoshenggworks2011@yahoo.com**

 **<https://sew-frontend-production.up.railway.app/>**

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