

# McNALLY SAYAJI ENGINEERING LIMITED

(A Member of the Williamson Magor Group)



## MOBILE CRUSHING AND SCREENING PLANT

At MSEL we believe in constantly reinventing ourselves. And in line with this we are always on the lookout for new avenues and opportunities.

McNally Sayaji Engineering Limited (MSEL), with factories in Kumardhubi, Asansol, Bangalore and Baroda, is one of the country's leading manufacturer of Crushing, Screening, Milling, Material Handling and mineral processing and other heavy equipment, serving the core sectors of the economy. These sectors include Coal, Mining, Power, Steel, Ports, Cement, Aluminium and Non-Ferrous Metals.

All manufacturing units of MSEL are ISO 9001-2008 certified with well established quality assurance department supported by modern testing facilities and

managed by a team of highly experienced professionals.

MSEL has branch offices at Kolkata, Bangalore, Chennai, Delhi, Mumbai, Hyderabad, Nagpur, Vishakhapatnam, Kochi, Vijaywada, Coimbatore. This makes MSEL capable to render comprehensive customer support.

MSEL has inducted technology over the years through strategic alliances and developed focused R&D and Design & Development teams, who offer optimum and cost effective solutions to meet customer needs.

## WHEEL MASTER (WM) Series Mobile Crushing & Screening Plant – Offering best in class Mobile Plant

MSEL has launched a new series of effective Mobile/Portable plants with different configuration to meet the demanding needs of customer/contractors in quarry, mining and recycling operation.

Highly flexible and economical solutions –from coarser to fine crushing and screening.

The WM series mobile plant can be operated as an independent single unit or a combination of various units together to provide best solutions for customer needs. The combination can be 2-stage, 3-stage or 4-stage crushing and screening in order to make the desired products. If required, a mobile screening station can be added to improve the product's efficiency. Each unit is inter-connected through efficient portable conveyors for ease of installation and commissioning.

The WM series has proven equipment on board and has the flexibility for quick transportation, installation and dismantling arrangements. All equipment on board, are well cabled for ease of operation and power connection.

The WM is lightweight and the design is optimized to offer efficient crushing and screening performances and production at lowest cost per ton.

# Primary Wheel Master

## Primary Crushing and Screening Plant

MODEL	WM J2436	WMJ3042
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### Crusher

Type	Single Toggle Jaw Crusher 2436 HD	Single Toggle Jaw Crusher 3042 HD				
Motor	90kW, 1000rpm, Squirrel-Cage type	110kW, 1000rpm, Squirrel-Cage type				
ON BOARD BELT CONVEYOR	Length (m)	Belt Width (mm)	Motor (kw)	Length (m)	Belt Width (mm)	Motor (kw)
	6.5	800	7.5	8	1000	11

### Feed Station

Feeder Type	VGf-900x4000, with 1.2m long grizzly bar	VGf-900x4000, with 1.2m long grizzly bar
Drive System	2x4.5 kW Unbalanced Motor / 1000rpm	2 x 6.2 kW Unbalanced Motor /1000rpm
Nominal Feed Hopper Volume	15 m <sup>3</sup>	18 m <sup>3</sup>

### Overall

Approximate Total Weight	35 Tons	50 Tons
Operating Width	4000 mm	4000 mm
Total Power	106.5 kW	133.4 kW

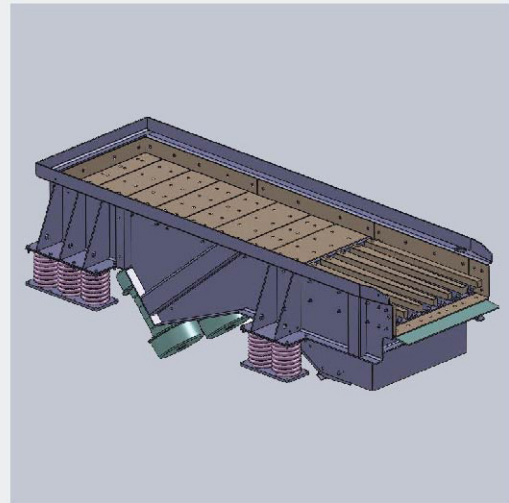
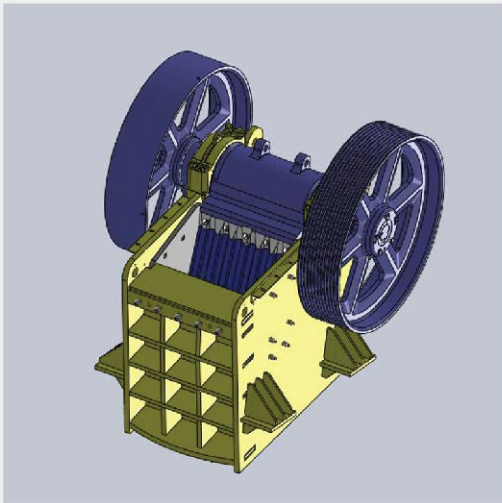


### Running Gear

2" king-pin, leaf-sprung double-axel bogie, with air-brakes and running lights. 8 tyres 10" x 20" – 16 ply.

### General Information

- The feeder has adjustable grizzly section formed by fabricated Hardox / Sailhard bars. The nominal gap is adjustable from 80 mm up to 120 mm. It has a wire cloth screening element beneath the grizzly (858 mm wide x 810 mm long), to remove the natural fines.
- The crusher by-pass chute collects material, which passes through the vibrating feeder's grizzly section. A manual deflecting flap allows three possibilities:
  - Directs the intermediate and fine fractions to the delivery conveyor beneath the crusher.
  - Directs the intermediate and fine fractions to a separate fine stockpiling conveyor.
  - Permits the removal of fine material (taken out by a separate stockpiling conveyor) and allows the intermediate fraction to follow with the crusher product on the delivery conveyor.
- The operator's platform has handrails and access ladder from the ground. Safety guards are fitted to drives and around the crusher's flywheels.
- Easy and quick displacement between job sites. Compact design and easy access to all equipment.
- All the feed, discharge and connection chutes are robust constructions, made of steel plate with liner.
- An electrical junction box is wired on board.
- Local control push button on the operator's platform for local control of the feeder.
- A separate electrical switchgear panel IP54 (protection class) and connecting cabling (10m) are provided as part of the standard supply. The free-standing control panel cabinet is placed on the ground during operation.



# Secondary Wheel Master

## Secondary Crushing and Screening Plant

MODEL	WM C120	WM C200	WM C180
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### Crusher

Type	C 120 Cone Crusher	C 200 Cone Crusher	C 180 Cone Crusher
Motor	90KW, 1500rpm	132KW, 1500rpm	160KW, 1500rpm

### Screen

Screen Size & Type	1.6 m x 4 m, circular motion, 4 deck	1.8 m x 4.5 m, circular motion, 3 deck	1.8 m x 4.5 m, circular motion, 4 deck
Motor	30KW, 1500rpm	22KW, 1500rpm	37KW, 1500rpm

### Overall

Approximate Total Weight	38MT	32MT	40 MT
Operating Width	4.7 m	4.3 m	4.5 m
Total Power	120 kW	162 kW	197 kW



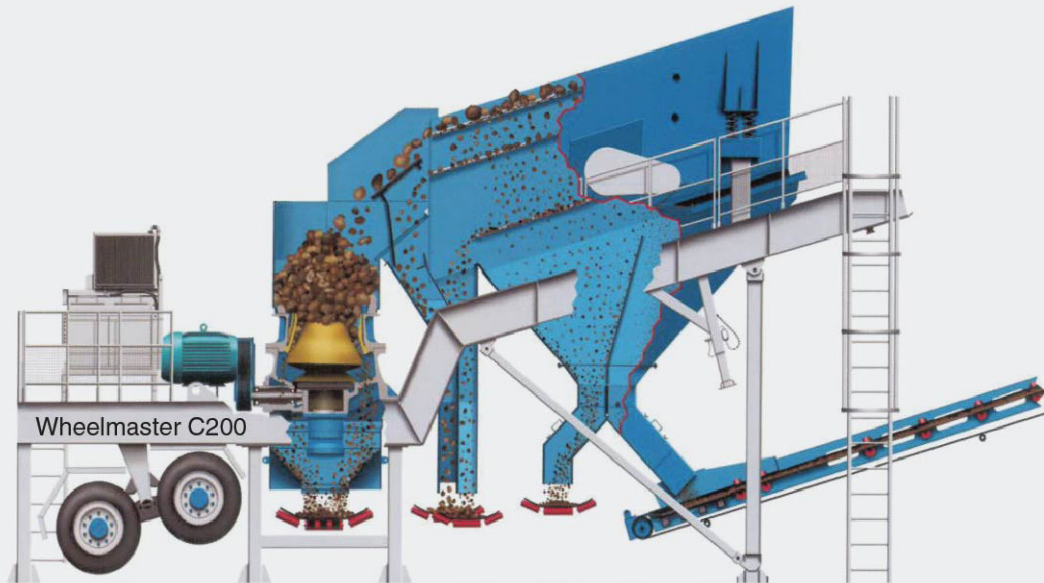
### Running Gear

2" king-pin, Walking Beam double-axel bogie, with air-brakes and running lights. 8 tyres 10" x 20" – 16 ply.

### General Information

- This mobile Plant can be fed either directly on to the Cone Crusher or alternatively on to the Vibrating Screen.
- The system is capable of producing 3 or 4 products as per requirement.
- The advantages of the system is as under :
  - The top deck oversize is feeding on to the Cone Crusher.
  - The second deck oversize can have two options. The material can be taken out as a separate product or alternatively the same can be mixed with the top deck oversize.
  - The third deck undersize can have one product or alternatively the deck can be split into two fractions enabling client to have two products.
- The screen undersize chute has a manual deflection flap as optional, which allows following possibilities :
  - Directs the intermediate and fine fractions to the delivery conveyor.
  - Directs the intermediate and fine fractions to a separate fines stockpiling conveyor.
- The operator's platform has handrails and access ladder from the ground. Safety guards are fitted to drives of crusher and screen.
- Easy and quick displacement between job sites.
- Compact design and easy access to all equipment.
- All the feed, discharge and connection chutes are robust constructions, made of steel plate with liner.
- An electrical junction box is wired on board.





# Tertiary Wheel Master

## Tertiary Crushing and Screening Plant

<b>MODEL</b>	<b>WM V3000</b>
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### Crusher

Type	Vertical shaft Impactor V3000
Motor	200 kW, 1500 rpm, Squirrel-Cage type

### Screen

Screen Type & Size	Circular Motion, 1.8 m wide x 4.5 m long, 3 or 4 deck
Motor	22 kW, 1500 rpm

### Overall

Approximate Total Weight	30 MT
Operating Width	4.8 m



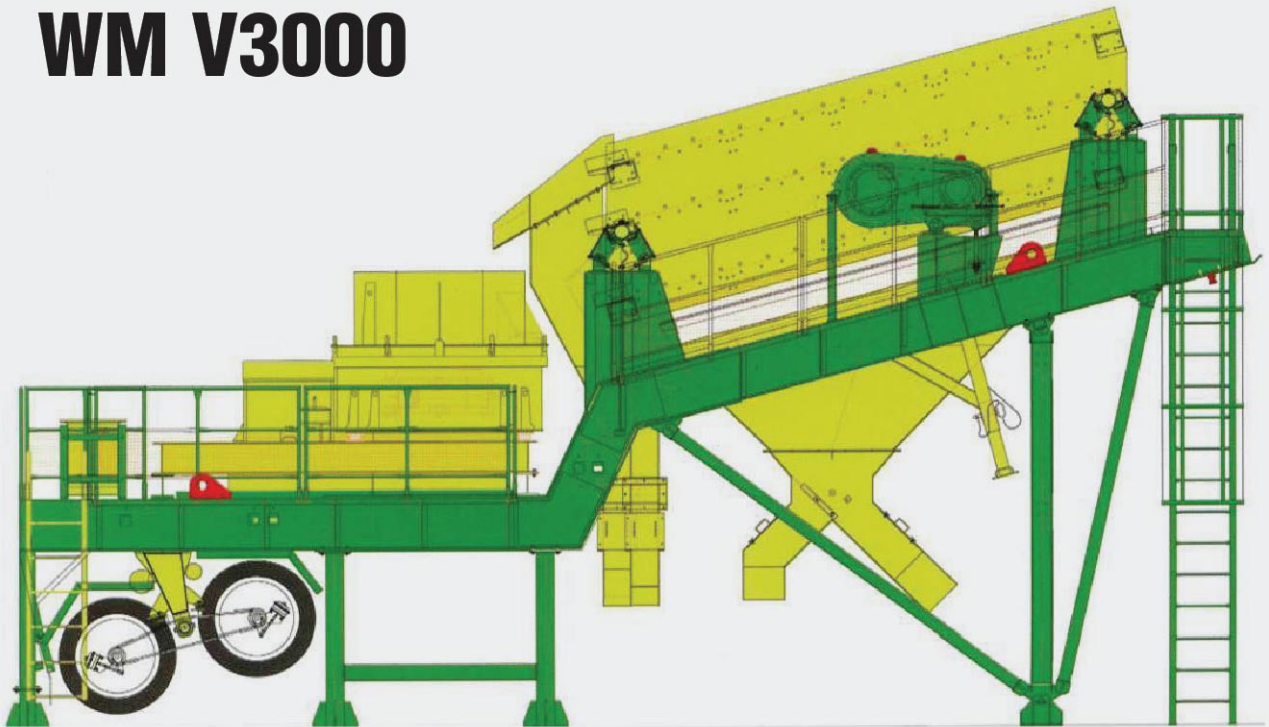
### Running Gear

2" king-pin, Walking Beam double-axel bogie, with air-brakes and running lights. 8 tyres 10" x 20" – 16 ply.

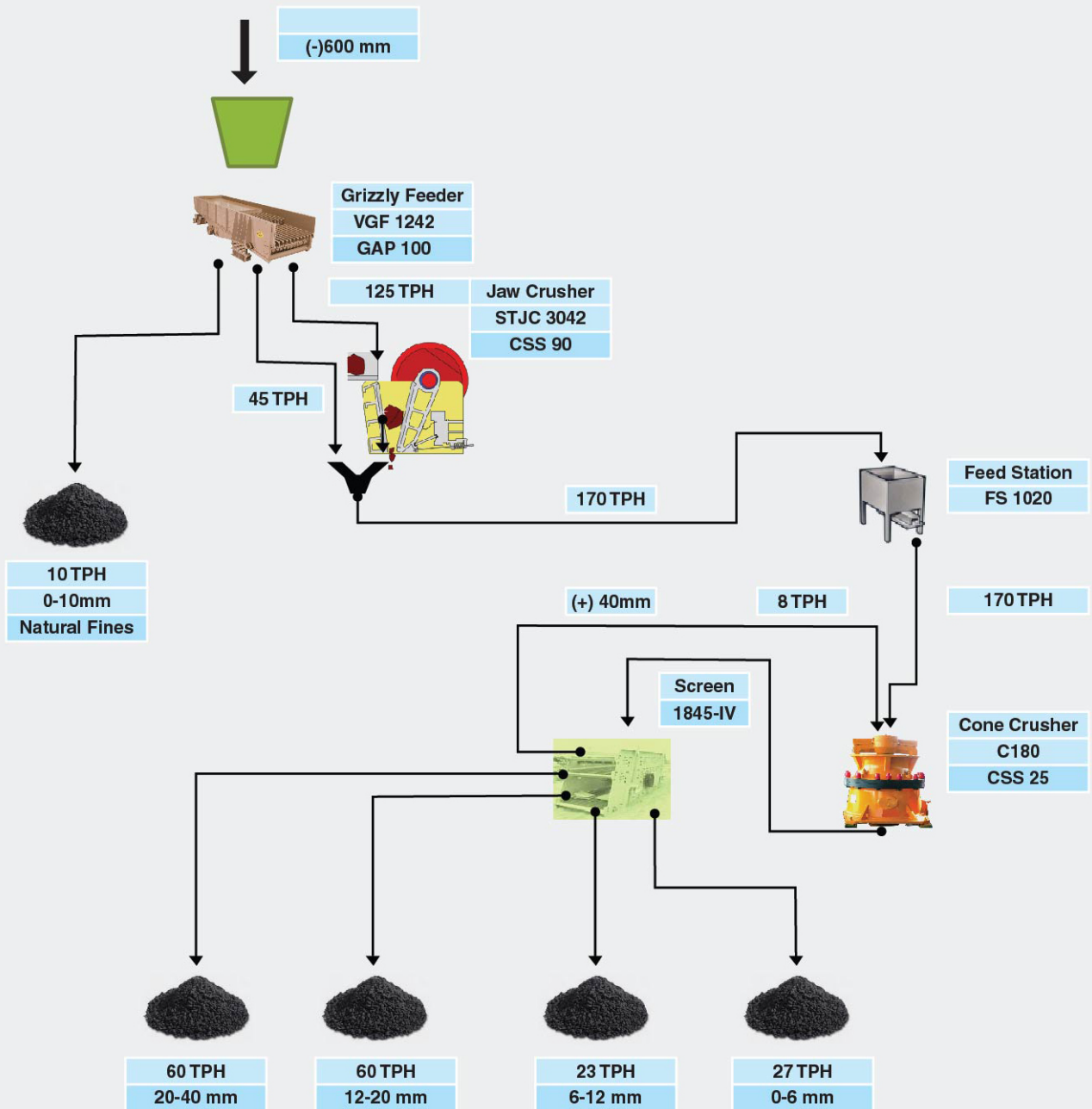
### General Information

- This Mobile Plant can be fed either directly on to the VSI crusher or alternatively on to the Vibrating Screen.
- The system is capable of producing 3 or 4 products as per system requirement.
- The advantages of the system is as under :
  - The top deck oversize is feeding on to the VSI crusher for further crushing or can be taken as a product.
  - The bottom deck undersize can have one product or alternatively the deck can be split into two fractions enabling client to have two products.
- The screen undersize chute has a manual deflecting flap which allows following possibilities:
  - Directs the intermediate and fine fractions to the delivery conveyor.
  - Directs the intermediate and fine fractions to separate fine stockpiling conveyors.
- The operator's platform has handrails and access ladder from the ground. Safety guards are fitted to drives of crusher.
- Easy and quick displacement between job sites.
- Compact design and easy access to all equipment.
- All the feed, discharge and connection chutes are robust constructions, made of steel plate with liner.
- An electrical junction box is wired on board.

# WM V3000

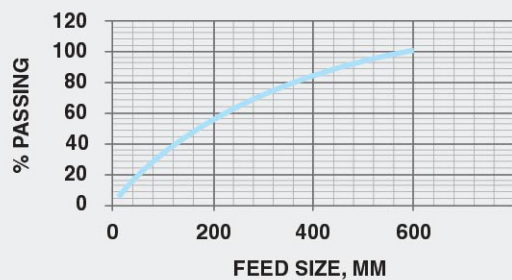


## 180 TPH 2-stage Crushing and Screening Plant



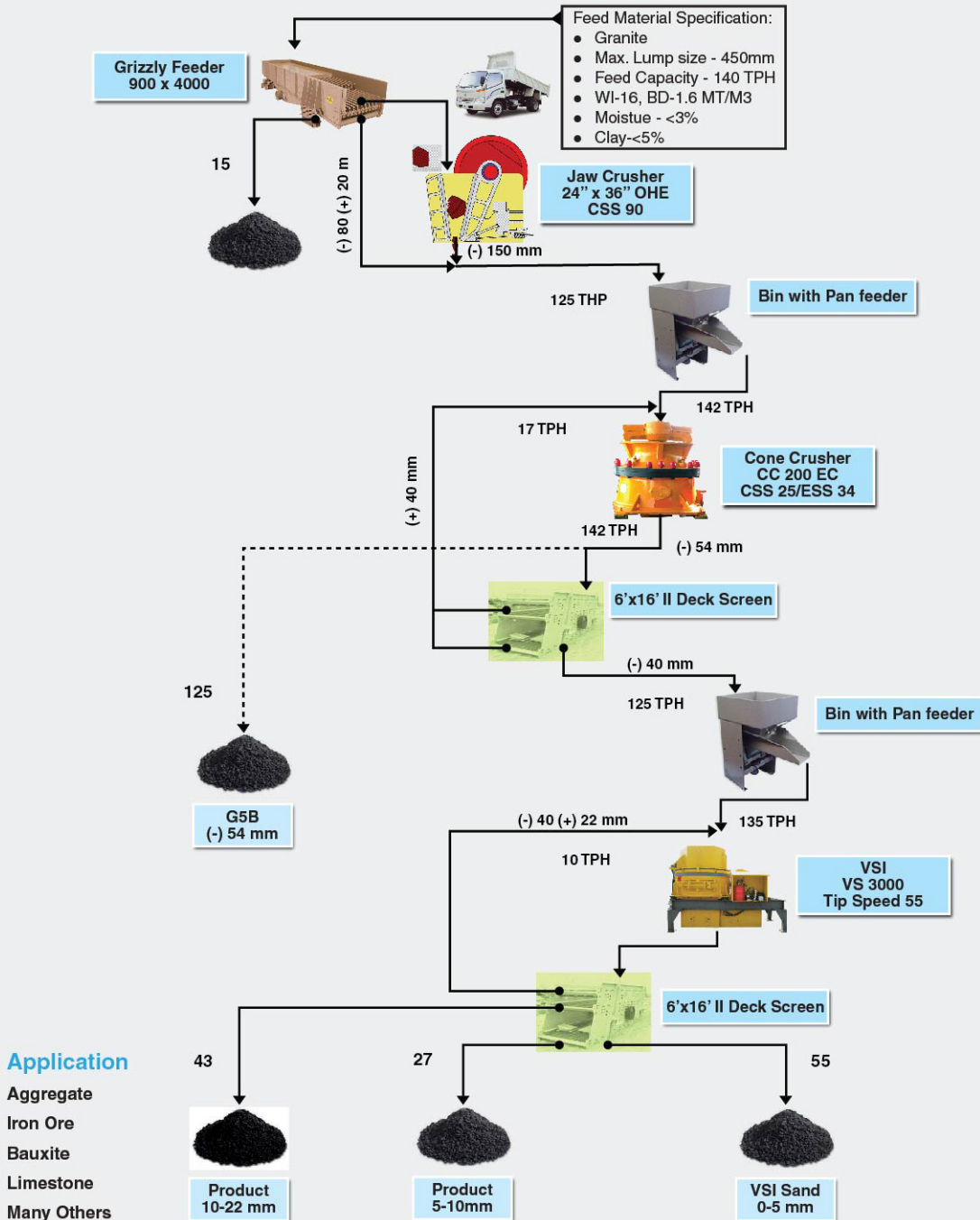
### Feed Material Specification

1. Feed Material	Granite
2. Max. Lump Size	600mm (diagonally)
3. Feed Capacity	180 TPH
4. Product Size	(-) 40 mm
5. Bulk Density	1.6 T/M <sup>3</sup>
6. Work Index	14kWh/ST
7. Moisture & Clay	1.5%max & 2% max



Capacity and Product Gradation as indicated depends on various parameter. Under normal operating condition it may vary within a range of +/-10%.

## 125 - 150 TPH 3 stage Crushing & Screening Plant



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Crusher | Screen | Grinding Mill | Feeder | Conveyor | Wagon Tippler | Pulley & Idler | Port Crane | Stacker Reclaimer | Mobile/Skid Mounted Crushing & Screening Plant | Slurry Pump | Thickener | Flotation Cell | Pressure Vessel | Equipment for Iron Ore, Steel, Cement, Power, Coal & Other Non-Ferrous Metal Processing Plants