MAGNA™
A TEREX BRAND

TECHNICAL
SPECIFICATION

MT120J

OVERVIEW

SPECIFICATION

VGF OR PAN FEEDER & 2 DECK LIVE PRE-SCREEN

Total Weight: 68,875kg (151,843lbs) VGF, Bypass Conveyor & Single Pole Magnet

Transport: (Pan feeder & 2 deck live Pre-screen)

Length: 17.1m (56′ 1″)
Height: 3.8m (12′ 6″)
Width 3.0m (9′ 10″)

Working:

Length: 16.63m (54′ 7″)
Height: 4.49m (14′ 9″)
Width: 8.05m (26′ 5″)

Crusher Type: Single toggle jaw, feed opening 1200mm x 820mm (47″x32″)

Power Unit: Tier 3 Caterpillar C13 328kW (440hp), Tier 4F/Stage V Scania DC13 331kW (444hp)

Plant Colour: RAL 7030, RAL 3020, RAL 7024, RAL 9005

EXTENDED HOPPER, PAN FEEDER & 2 DECK LIVE PRE-SCREEN VARIANT

Total Weight: 76,650kg (168,984lbs) Pre-Screen, Bypass Conveyor, Short Hopper Extensions, Crusher Unblock, Single pole magnet

Length: 18.6m (61′)
Height: 3.85m (12′ 8″)
Width 3.0m (9′ 10″)

Working:

Length: 17.84m (58′ 6″)
Height: 4.49m (14′ 9″)
Width: 8.05m (26′ 5″)

OVERVIEW

The MAGNA MT120J is a high performance primary jaw crushing plant and is designed for large scale operators in quarrying, demolition, recycling & mining applications. It is equipped with the advanced high performance 1200mm x 820mm Terex chamber. Built for the toughest of applications, the robust construction and modern design of the MT120J ensures optimum performance, reliability and efficiency.

FEATURES & BENEFITS

- Output potential of up to 600tph / 661 US tph - depending on material type & crusher settings
- Ground level quick set-up with hydraulic folding feed hopper with hydraulic locking system
- Heavy duty wear resistant feed hopper
- Stepped self cleaning grizzly feeder with under feeder screen
- Wide bypass chute to optimise material flow
- Aggressive crushing action with high swing jaw encouraging material entry into crushing chamber
- Fully hydraulic crusher setting adjustment
- Excellent under crusher access for removal of wire with hydraulic raise lower product conveyor
- Angle adjustable product conveyor, lowers for access & transport
- Low fuel consumption due to highly efficient direct drive system and low engine RPM
- Easily accessed power unit canopy
- Modern & user friendly PLC control system with auto start facility
- Dust suppression system
- MAGNA telemetry as standard
- Radio remote control as standard

JAW CRUSHER

Crusher type: Single toggle Jaw with hydraulic setting adjustment

Feed opening: 1200mm x 820mm (47″ x 32″)

Bearings: Self aligning spherical rollers

Lubrication: Grease

Drive: High performance wedge belts with screw adjust tensioner

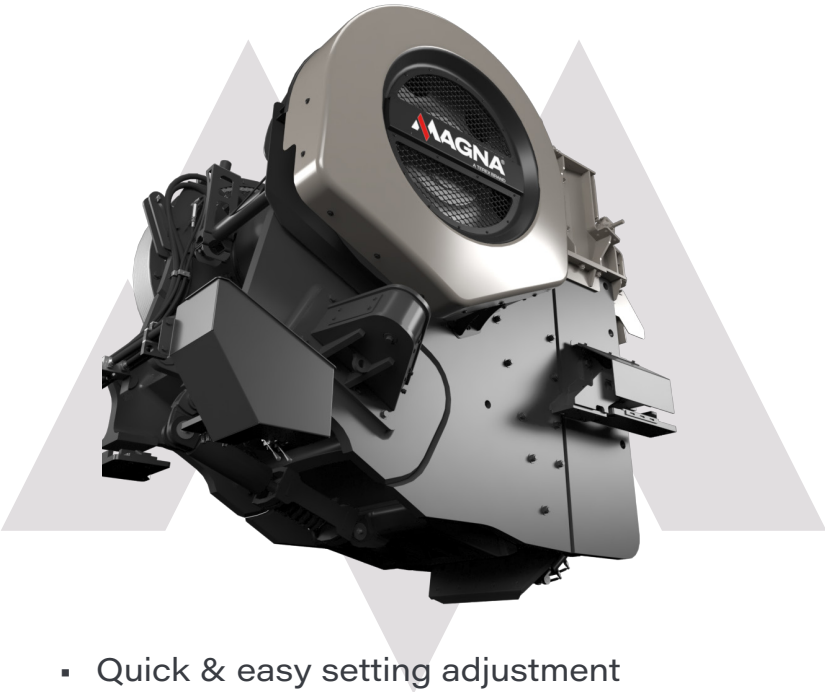
Minimum setting: 75mm (3″) CSS

- All setting measured from root to tip & subject to suitability of feed material.
- This plant has been designed for both quarry, mining and recycling applications where appropriate.
- For maximum material strength of 500kN 10% Fines, 300MPa compressive strength.

Maximum setting: 200mm (8″) CSS standard jaws

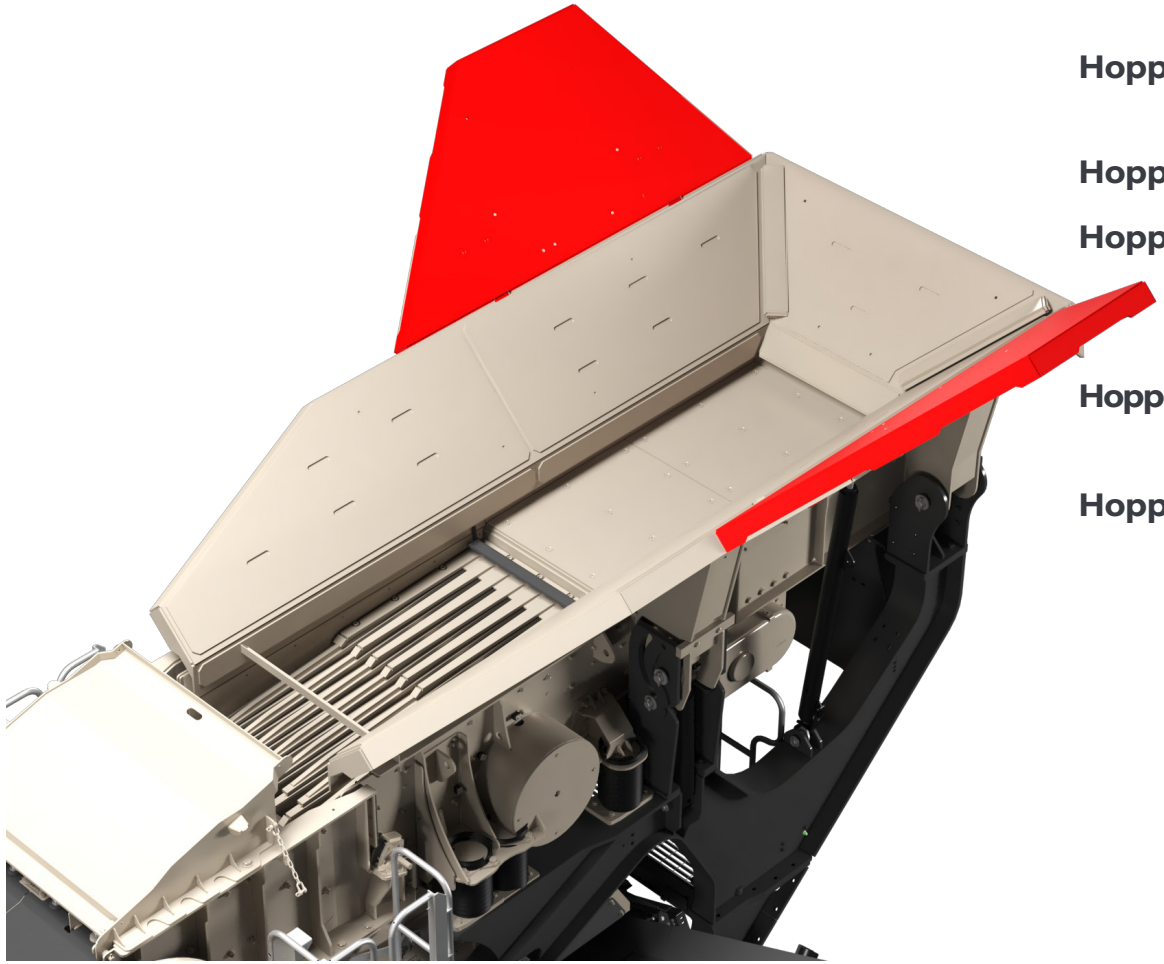
Hydraulic adjustment: Hydraulically adjusted CSS using wedge system.

Electric push button control



- Quick & easy setting adjustment
- Drawback rod hydraulic adjustments not required during setting changes
- Cartridge type bearings
- Overlap jaw protects tip of jawstock
- One piece fixed jaw support
- Replaceable bolt-on jawstock toe
- Proven manganese liner retention - through bolt design

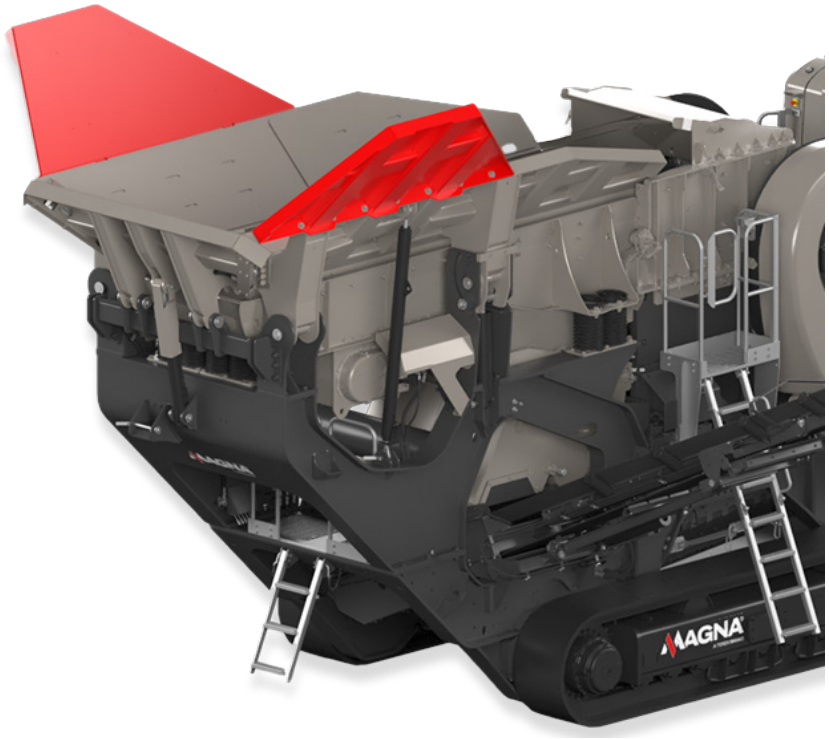
HOPPER



Hopper type:	Hydraulic locking from ground level
Hopper length:	4.82m (15′ 10″)
Hopper width:	2.2m (7′ 3″) standard
	4m (13′ 1″) with extensions
Hopper capacity:	9.3m³ (12.2 cu. yd.) / 10.8m³ (14.1 cu. yd.) / 14.2m³ (18.6 cu. yd.)
Hopper body:	Abrasion resistant feed hopper with hydraulic struts and pins

VIBRATING GRIZZLY FEEDER

TECHNICAL SPECIFICATION



Type:	Spring mounted vibrating pan & grizzly feeder
Vibrating Unit:	Twin heavy-duty cast eccentric shafts running in spherical roller bearings, gear coupled at drive end
Length:	4.29m (14′ 1″)
Width:	1.16m (3′ 10″)
Drive:	Flange mounted hydraulic motor
Grizzly:	2 replaceable stepped cartridge type grizzlies 75mm (3″) nominal aperture, self cleaning
Underscreen:	40mm (1.6″) mesh fitted as standard
Mesh deck:	1.38m (4′ 6″) long x 1.16m (3′ 10″) wide

PRODUCT CONVEYOR

Conveyor type: Troughed belt conveyor

Design:

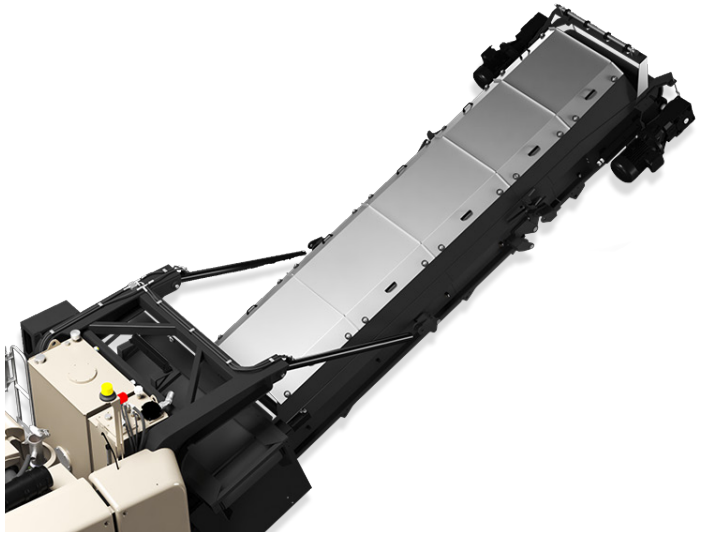
- Hydraulic raise & lower facility to aid rebar removal & transportation.
- Can be raised or lowered whilst crushing.
- Fully removable modular unit to aid access & maintenance.
- Lower section raises & lowers for optimum ground clearance.

Belt type:	EP500/3 with 8mm top & 2mm bottom cover, vulcanised
Belt width:	1200mm (48")
Discharge height:	4m (13' 1")
Stockpile volume:	136m³ (178 cu. yd.)
Drive:	Twin direct hydraulic motor
Tunnel:	Conveyor fitted with tunnel & side covers to minimise rebar snagging
Feedboot:	Mild steel plate with abrasion resistant steel liners at feed point
Belt adjustment:	Screw adjusters at head drum
Belt scraper:	SCS style
Lubrication:	Low level remote head drum grease points
Skirting:	Wear resistant rubber skirts fitted up to magnet

DUST SUPPRESSION SYSTEM

Sprays bars with atomiser nozzles mounted over crusher mouth, product conveyor feed & discharge points. Piped to an inlet manifold for client's pressured water supply.

Type:	Clean water multi-atomising nozzles
Inlet:	Single filtered inlet point on chassis
Pressure:	2.8 bar (42 psi)
Frost protection:	Via system drain valves
Pump:	Optional extra



POWER UNIT & HYDRAULICS

Tier 3 Equivalent: Caterpillar C13, 6 cylinder, direct injection. 328kW (440hp)

Operating conditions:
Ambient temp. +30°C & –5°C (86F & 23F) altitudes up to 2000m (6,562ft) above sea level - For applications outside this range please consult with MAGNA as the plant performance / reliability may be affected.

Operating rpm range: 1700-1800 rpm

Tier 4F / Stage V: Scania DC13 84A 331kW (444hp)

Operating conditions:
Ambient temperature +30°C & –5°C (86F& 23F) at altitudes up to 2000m (6562ft)above sea level - For applications outside this range please consult with MAGNA as the plant performance / reliability may be affected.

Operating rpm range: 1700-1800 rpm

Emission Control Technique:
Selective Catalytic Reduction (SCR)

Plant drive: Direct drive
Fuel tank capacity: 750 L (198 US G)
Hydraulic tank capacity: 750 L (198 US G)
Urea tank capacity: 60 L (16 US G)

Clutch type:
Highly efficient, self-adjusting HPTO 12 dry plate clutch with electro hydraulic operation

Crusher drive:
Direct drive via wedge belts
Clutch pulley diameter 236mm
Crusher pulley diameter 1568mm

Drive tensioning:
Manual via tensioner wheel

Scania Stage IV / Tier 4 Final Technology

Scania industrial engines meet the requirements of Stage IV and Tier 4 Final without the need for a particulate filter. With only EGR and SCR technology, the installation will be unaffected. Scania-developed systems for engine management and emission control ensure an attractive blend of performance and operating economy.

The function of the SCR system is based on the injection of a urea solution(AdBlue or DEF, Diesel Exhaust Fluid) into the after-treatment system.

With EGR, a small amount of exhaust gases is returned to the intake of theengine, diluting the intake air and reducing the oxygen concentration. This will reduce the combustion temperature and further reduce emissions.

TRACKS

Type:	Heavy-duty tracks
Sprocket centers:	4.17m (13′ 8″)
Sprocket centres (Long Feeder):	4.2m (13′ 9″)
Track width:	500 mm (1′ 8″)
Gradeability:	30˚ maximum
High speed:	0.85kph (0.53mph)
High speed (Long Feeder):	1 kph (0.62mph)
Drive:	Hydraulic motors
Tensioning:	Hydraulic adjuster, grease tensioned

PLANT CONTROLS & OTHER

CHASSIS

Heavy duty I-section welded construction, provides maximum strength & accessibility.

GUARDS

Composite guards are provided for all drives, flywheels, pulleys & couplings. The guards provided are designed & manufactured to meet CE & ANSI standards. Hinged access guards are provided on the top, side & both ends of the engine.

PLATFORMS

A folding access ladder is provided to gain access to each side of the power unit. A maintenance platform is provided on one side of the feeder with double row handrails & access ladders. A platform is also included to gain access between the crusher & the power unit.

UMBILICAL CONTROL

An umbilical control unit is also supplied as standard with the plant.

Controls tracking function & has a stop button for the plant.

RADIO REMOTE CONTROL

Complete with integrated tracking functions & plant stop button. Only available in certain countries where type approval has been obtained. Remote can also be used to Auto (start/stop)

PLANT CONTROLS

Full PLC control panel

Full system diagnostics

Controls fitted to the plant include:

- Sequential start up
- Engine (start/stop/speed)
- Crusher (start/stop)
- Optional bypass conveyor (start/stop)
- Product conveyor (start/stop & raise/lower)
- Feeder (start/stop/speed) controls, located on the side of the plant

PLANT CHUTE-WORK

Crusher feed chute:
Bolted assembly. 12mm mild steel side walls with 15mm wear plates.

Grizzly fines/ bypass:
Lined with abrasion resistant wear plate.
Adjustable deflector plate to direct material to bypass conveyor or product conveyor.

OPTIONS (1)

PAN FEEDER & 2 DECK LIVE PRE-SCREEN

Pan type:	Sprung vibrating pan
Vibrating unit:	Twin heavy duty cast eccentric shafts running in spherical roller bearings, gear coupled at drive end, flange mounted hydraulic motor
Dimensions:	Length: 2.39m (7′ 10″) Width: 1.08m (3′ 7″)
Pan:	15mm thick fully welded base plate with 12mm thick abrasion resistant liners
Pan:	Variable speed control though control panel & (radio remote optional)
Pre-screen:	Sprung vibrating unit 9mm throw, 1000rpm screen speed
Vibrating unit:	Single shaft, out of balance weights, flange mounted hydraulic motor
Top deck:	2 piece cartridge with 2.04m (6′ 8″) long self cleaning fingers 75mm (2″) nominal spacing
	Length: 2.04m (6′ 8″) Width: 1.2m (3′ 11″)
Bottom deck:	16° Incline with 40mm (1.5″) mesh Length: 1.38m (4′ 6″) Width: 1.2m (3′ 11″)
Chute:	Bypass chute with internal 5 position flap door fitted, 3 positions for material transfer and 2 positions for maintenance

EXTENDED HOPPER & PAN FEEDER & 2 DECK LIVE PRE-SCREEN

Vibrating pan feeder with double deck live pre-screen

Hopper capacity:	11.5m³ (15 cu. yd.) / 15.5m³ (20.3 cu. yd.) / 20m³ (26 cu. yd.)
Pan type:	Sprung vibrating pan
Vibrating unit:	Twin heavy duty cast eccentric shafts running in spherical roller bearings, gear coupled at drive end, flange mounted hydraulic motor
Dimensions:	Length: 3.47m (11′ 5″) Width: 1.06m (3′ 6″)
Pan:	15mm thick fully welded base plate with 12mm thick abrasion resistant liners
Pan:	Variable speed control though control panel & (radio remote optional)
Pre-screen:	Sprung vibrating unit 9mm throw, 1000rpm screen speed
Vibrating unit:	Single shaft, out of balance weights, flange mounted hydraulic motor
Top deck:	2 piece cartridge with 2.04m (6′ 8″) long self cleaning fingers 75mm (2″) nominal spacing
Length:	2.04m (6′ 8″) Width: 1.2m (3′ 11′)
Bottom deck:	16° Incline with 40mm (1.5″) mesh
Length:	1.38m (4′ 6″) Width: 1.2m (3′ 11′)
Chute:	Bypass chute with internal 5 position flap door fitted, 3 positions for material transfer and 2 positions for maintenance

OPTIONS (3)

HOPPER EXTENSIONS

Hopper type: Bolt-on extensions
Hopper length: 4820mm (15′ 10″)
Hopper width: 4000mm (13′ 1″)
Hopper body: 15mm wear resistant plate, steel ribs

EXTENDED PRODUCT CONVEYOR

Discharge height: 4.6m (15′ 1″)
Stockpile volume: 206m³ (268cu. yd.)
Hydraulically folds for transport.

FEEDER UNDERSCREEN MESH

Position: Optional aperture meshes fitted in lieu of the standard 40mm (1.6″) mesh.
Width: 1.16m (3′ 10″)
Length: 1.38m (4′ 6″)

UNDER CRUSHER DEFLECTOR PLATE

A hydraulic adjustable deflector plate, increases belt protection in recycling applications. Situated immediately below the crusher outlet point & is fitted with a 15mm thick wear resistant plate. Deflector plate working angle can be adjusted from the PLC control system.

BYPASS CONVEYOR

Conveyor type: Troughed, modular with hydraulic folding for transport
Width: 750mm (30″)
Discharge height: 3.79m (12′ 5″)
Stockpile volume: 89m³ (117 cu. yd.)
Discharge height extra long feeder: 3.33m (10′ 11″)
Stockpile volume extra long feeder: 59m³ (77 cu. yd.)
Drive: Direct drive hydraulic motor

MAGNET

Options: CP020 single pole (S.P.)
TP020 twin pole (T.P.)
Belt width: 750mm (2′ 6″)
Centres: 1700mm (5′ 7″)
Drive / control: Direct drive hydraulic motor, pre-set variable speed
Discharge: RHS via stainless shedder plate
Weight: S.P. 1175kg (2590lbs)
T.P. 1700kg (3748lbs)

OPTIONS (4)

CONTROL PANEL POSITIVE PRESSURISATION

An additional unit designed to reduce dust particles within the control panel. A continuous flow of clean air is passed through the cabinet whilst the unit simultaneously filters out any particulate laden air.

HYDRAULIC WATER PUMP:

A hydraulically powered water pump is available to power the dust suppression system.

ADDITIONAL EXTRAS:

- Stockpile level sensor
- Dust covers
- Twin pole overband magnetic separator
- Magnet prepared
- Crusher unblock
- Jaw level sensor
- Lighting mast

BELT WEIGHER

Type:	Modular scale with stainless load cells, single idler speed wheel & display unit
Accuracy:	+ 1.0 + 0.5%
Load cells:	2 temperature compensated parallelogram-style, stainless steel
Display:	Separate read out near control panel

HOT/COLD CLIMATE OILS

Cold climate oils - (recommended for ambient temperatures between -20 to +30°C) - Hydraulic & lubrication oils only. Other component modifications may be required for low temperature operations. Please contact the MAGNA sales & applications department with any queries. Hot climate oils - (recommended for ambient temperatures between +15 to +50°C)

JAW PROFILES

All jaw profiles supplied in 18% manganese as standard. This is the proven material for quarry & recycling applications with an initial hardness of around 230BHN (Brinell Hardness)

SUPER TOOTH JAWS (STANDARD OFFERING)

For extended life across most quarrying applications. Super tooth has a significantly increased wear life using a deeper profile without comprising strength or product shape.

QUARRY TOOTH JAWS

Quarry tooth jaws are suitable for use in medium rock, hard rock and high abrasion applications. Will provide a longer wear life due to the additional material on the teeth of the jaw.

PYRAMID TOOTH JAWS

Designed as a Jaw for recycling applications or with rock that is difficult to fracture.

HEAVY DUTY JAWS

A new design of HD jaw plates have been designed for the fixed jaw, specifically engineered to complement other profiles on the swing jaw. This design aims to align wear rates between the fixed and swing jaws, reducing the frequency of liner changes.

TELEMETRY

TELEMATICS

A number of MAGNA products can also be fitted with T-Link telemetry system which provides the customer with real time information on the performance of their machine.

Telematics maximises uptime, parts and service availability and provides factual up to date information from the field.

GPS MACHINE TRACKING

MACHINE DATA

FLEET OVERVIEW

DASHBOARD DISPLAY

USEFUL REPORTING

ENHANCED USABILITY

T-LINK

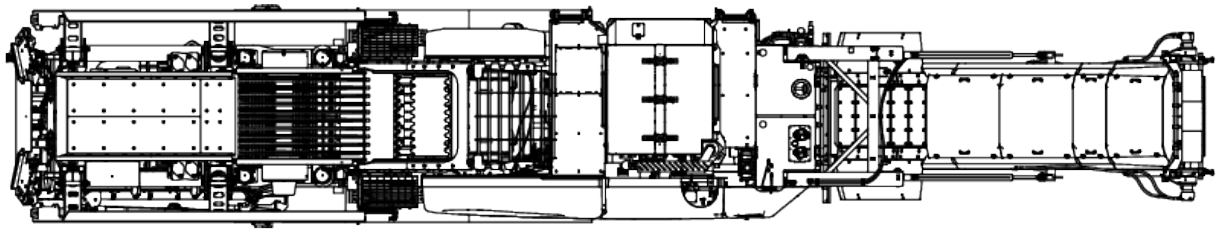
WEIGHT & DIMENSIONS

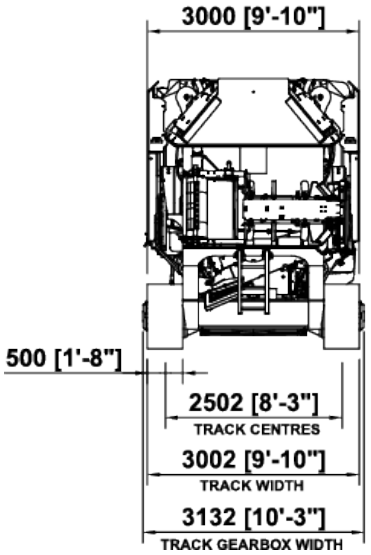
TRANSPORT (VGF OR PAN FEEDER & 2 DECK LIVE PRE-SCREEN)

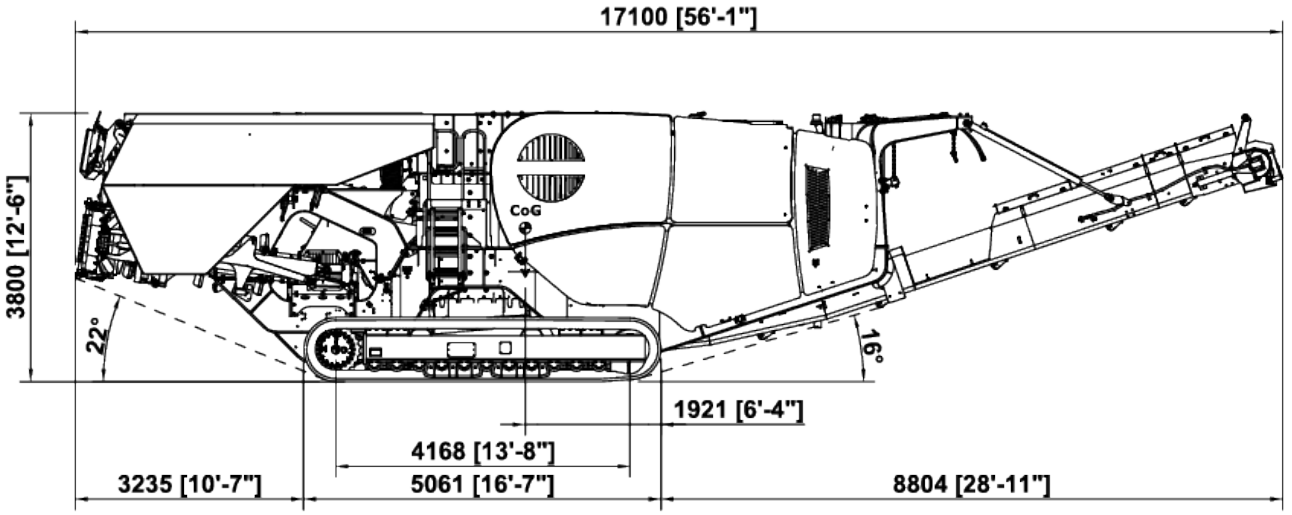
SHOWN WITH;

- Standard product conveyor
- Product conveyor dust covers
- Bypass conveyor
- Extended hopper flares
- Pre-screen
- Additional rear upper platform
- Waterpump

(Weight Subject to change without notice)







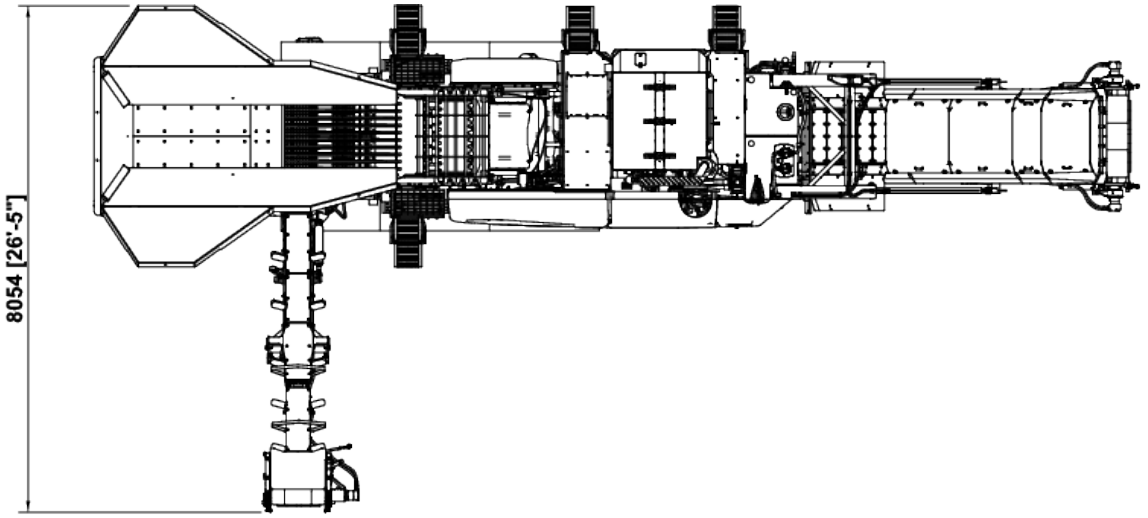
WEIGHT & DIMENSIONS

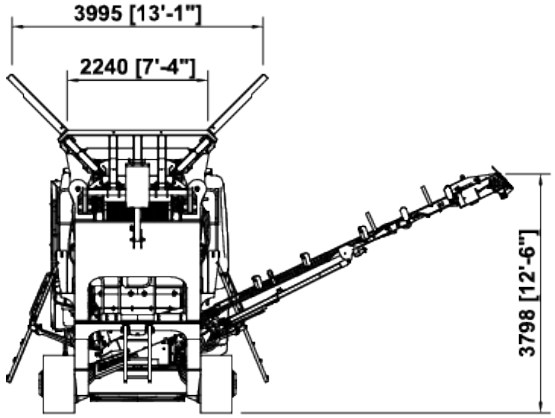
WORKING (VGF OR PAN FEEDER & 2 DECK LIVE PRE-SCREEN)

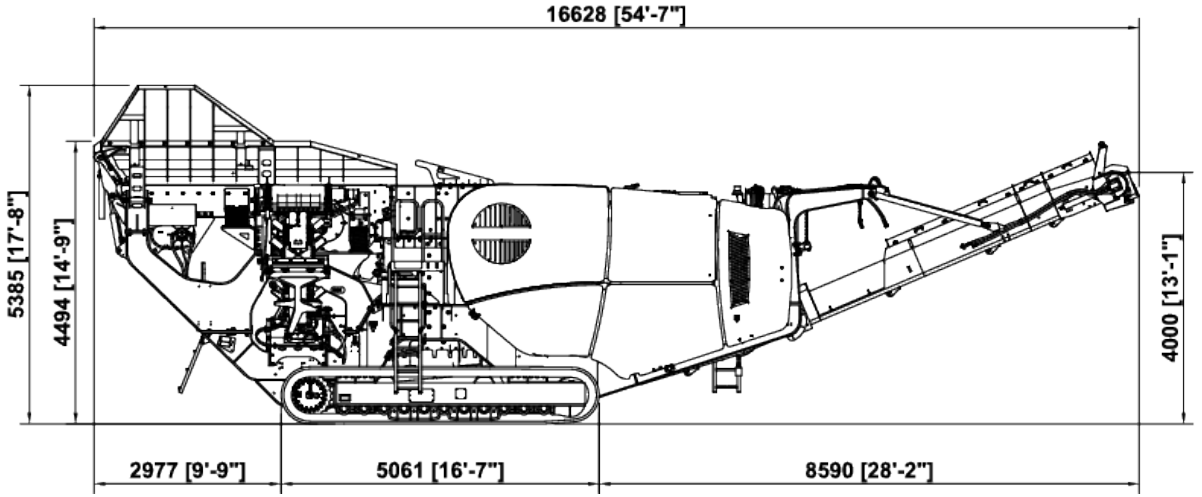
SHOWN WITH;

- Standard product conveyor
- Product conveyor dust covers
- Bypass conveyor
- Extended hopper flares
- Pre-screen
- Additional rear upper platform
- Waterpump

(Weight Subject to change without notice)







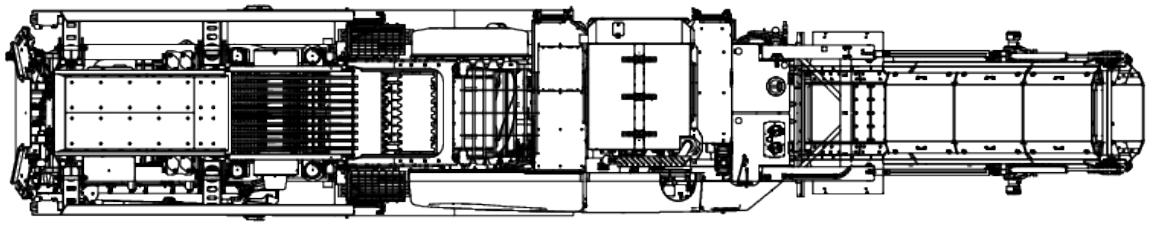
WEIGHT & DIMENSIONS

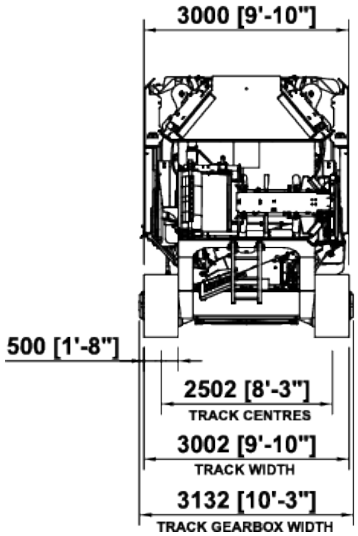
TRANSPORT (VGF OR PAN FEEDER & 2 DECK LIVE PRE-SCREEN C/W EXTENDED PRODUCT CONVEYOR)

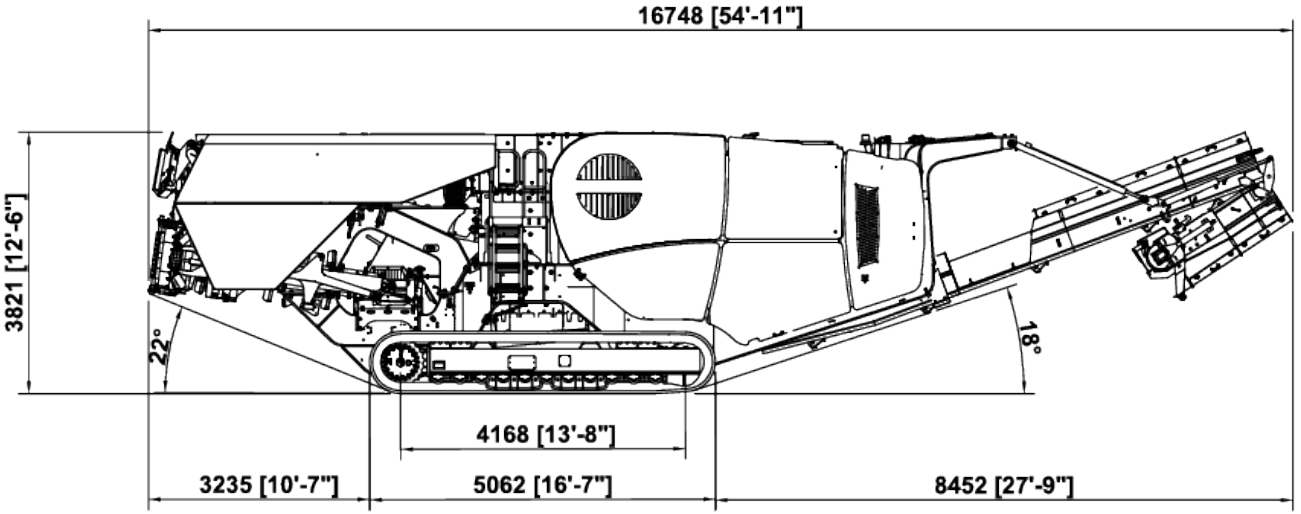
SHOWN WITH;

- Extended product conveyor
- Product conveyor dust covers
- Bypass conveyor
- Extended hopper flares
- Pre-screen
- Additional rear upper platform
- Waterpump

(Weight Subject to change without notice)







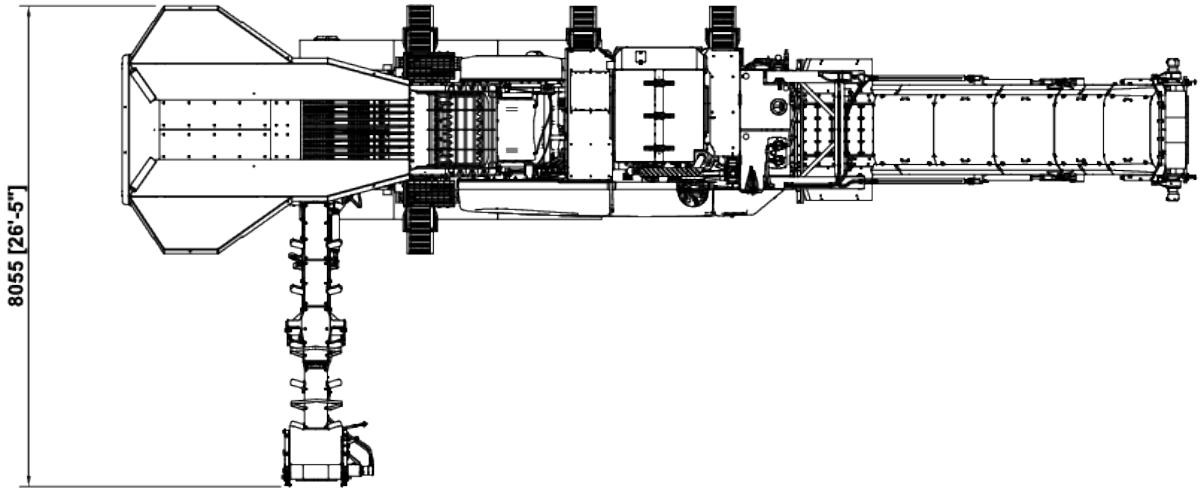
WEIGHT & DIMENSIONS

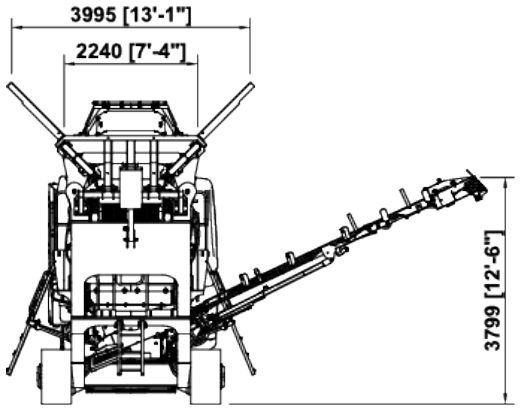
WORKING (VGF OR PAN FEEDER & 2 DECK LIVE PRE-SCREEN C/W EXTENDED PRODUCT CONVEYOR)

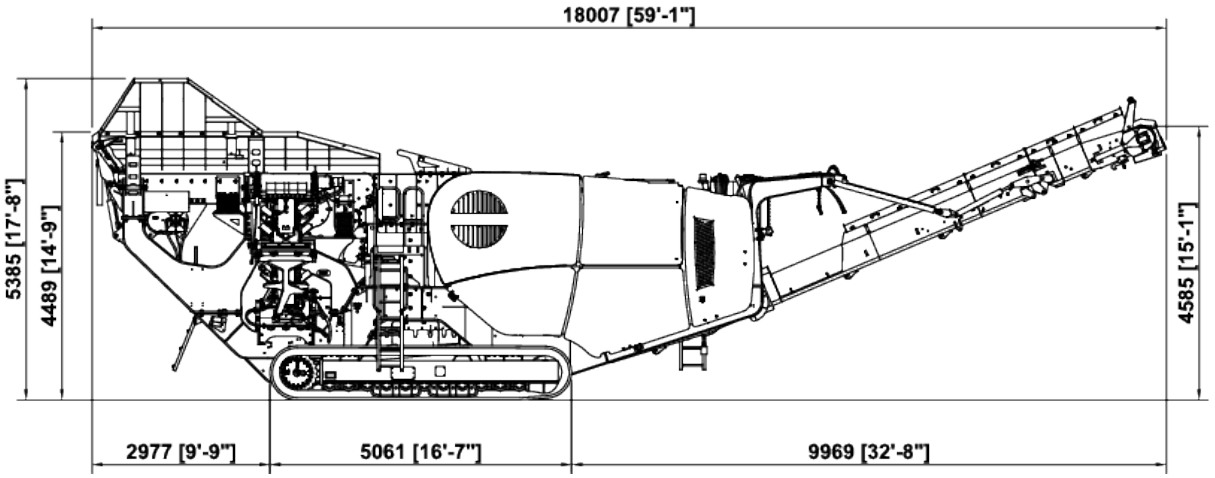
SHOWN WITH;

- Extended product conveyor
- Product conveyor dust covers
- Bypass conveyor
- Extended hopper flares
- Pre-screen
- Additional rear upper platform
- Waterpump

(Weight Subject to change without notice)







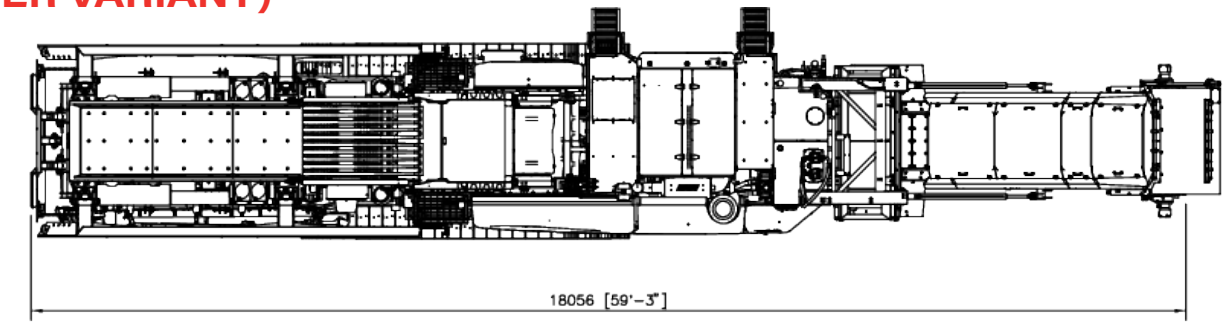
WEIGHT & DIMENSIONS

TRANSPORT (EXTENDED HOPPER VARIANT)

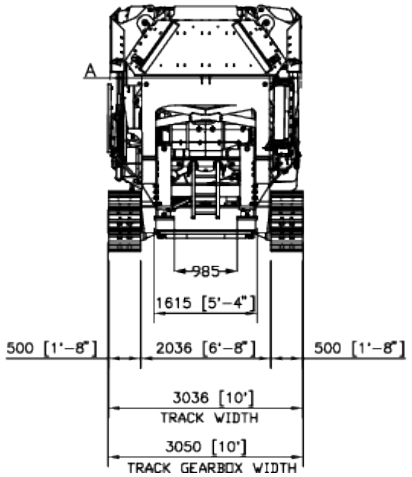
LONGER PAN FEEDER MACHINE WITH;

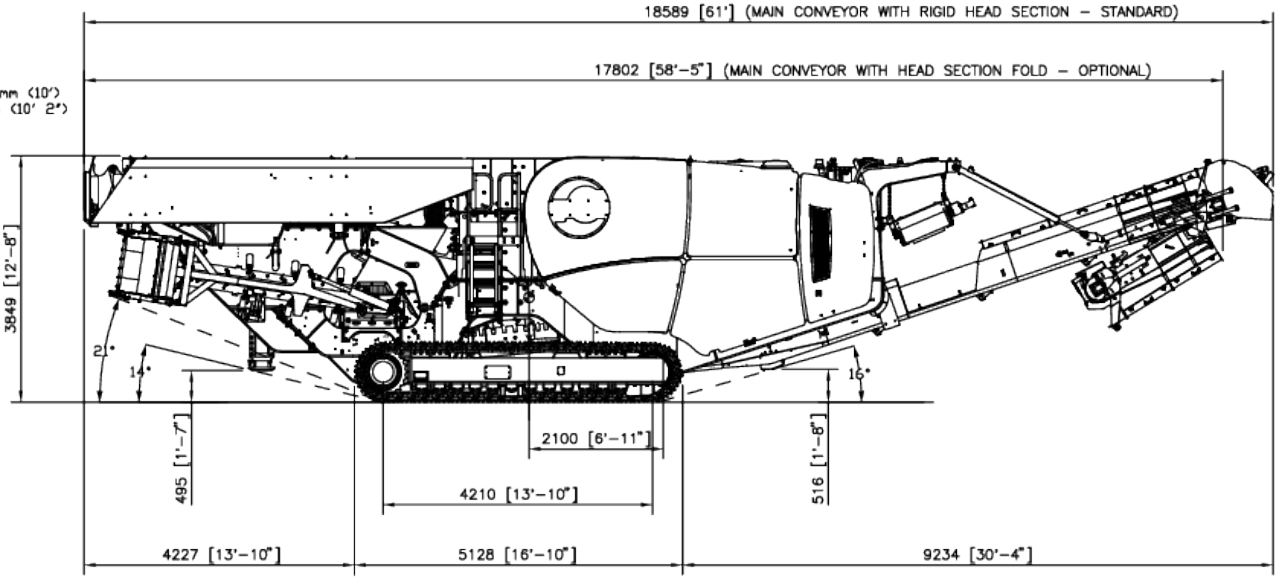
- Standard product conveyor
- Reverse option
- Bypass conveyor
- Small hopper extensions
- Pre-screen
- Additional rear upper platform
- Single pole magnet
- 75mm closed cassettes

(Weight Subject to change without notice)



Machine width notes, reference dimension 'A' below:
1. Width with standard flares – 3035mm (10')
2. Width with short hopper flare extensions fitted – 3060mm (10')
3. Width with long hopper flare extensions fitted – 3100mm (10' 2")





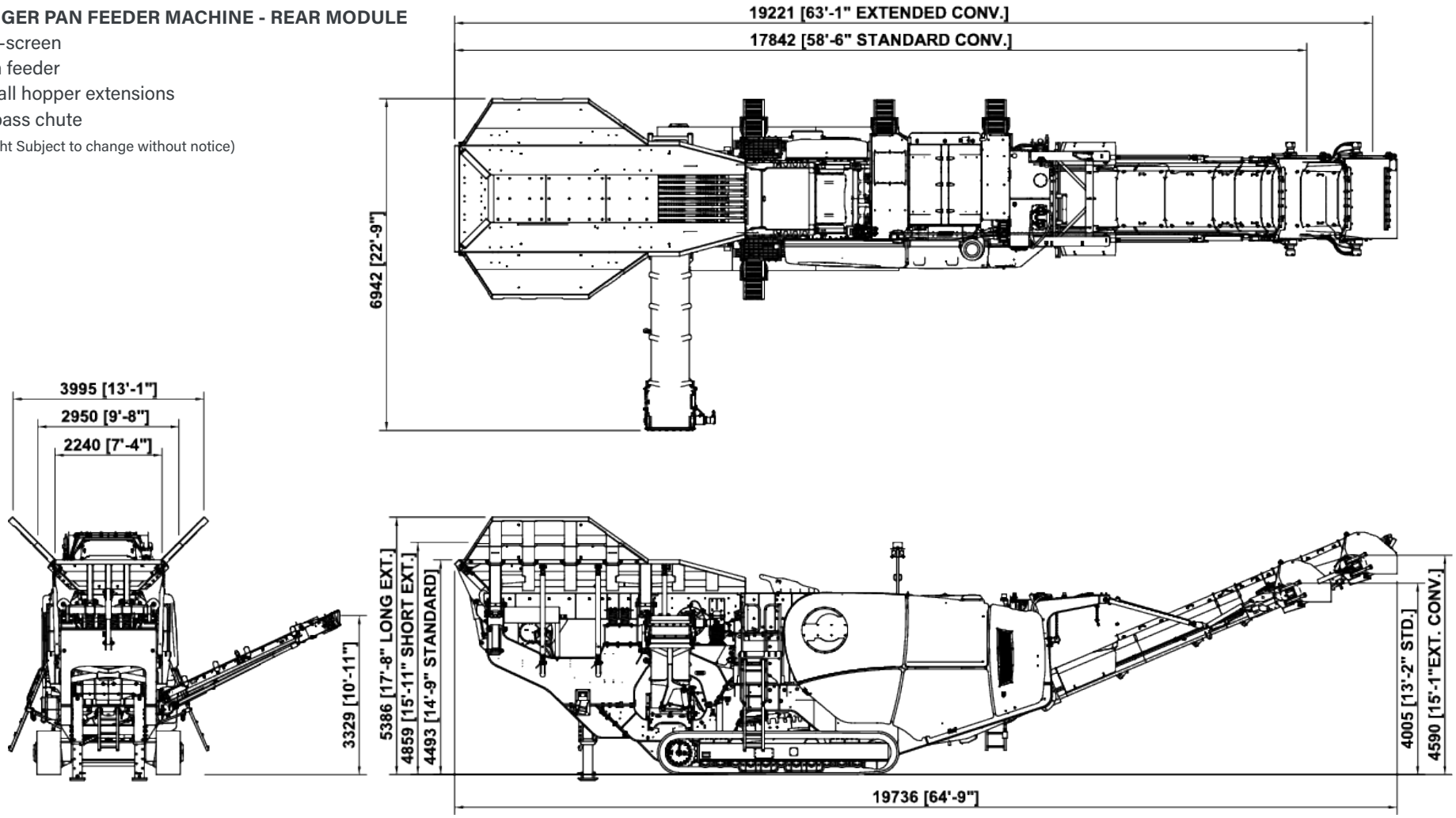
WEIGHT & DIMENSIONS

WORKING (EXTENDED HOPPER VARIANT)

LONGER PAN FEEDER MACHINE - REAR MODULE

- Pre-screen
- Pan feeder
- Small hopper extensions
- Bypass chute

(Weight Subject to change without notice)



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