

COBRA 290 / 290R

IMPACT CRUSHER

TECHNICAL
SPECIFICATION



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READER TO VIEW THIS DOCUMENT.

OVERVIEW

1 HOPPER

- 3.3 m³ (4.3 cubic yards) hopper capacity
- Integrated pre-screen for fines removal
- Feeder speed auto regulates based on crusher load

4 ENGINE OPTIONS

- Tier 3 Equivalent: Volvo D8 235kW (315hp)
- Tier 4 Final: Volvo D8 235kW (315hp)
- Stage V: Volvo D8 235kW (315hp)

2 IMPACT CHAMBER

- 1030mm (41") x 790mm (31") crusher inlet
- 1000mm wide (40") x 1034mm diameter (41.5") rotor
- Max OSS - 150mm (6") upper, 75mm (3") lower
- Min CSS - 50mm (2") upper, 20mm (3/4") lower
- 2 high / 2 low configuration as standard
- Hydraulic adjust and hydraulic overload as standard

5 CONTROL SYSTEM

- Simple intuitive push button operation

3 CONVEYORS

- 1000mm (40") Wide product conveyor
- Product Conveyor discharge height 3.42m (11'3")

6 BY-PASS CONVEYOR OPTION

- 500mm (20") wide
- 2.48m (8'2") discharge height



CRUSHER DRIVE:

Extremely efficient diesel direct drive for optimal fuel efficiency and performance



UP TO
290
TONNES PER HOUR
(320 US TPH)

FEEDER

Fully enclosed hopper / feeder to eliminate spillage

Hopper Capacity: 3.3m³ (4.3 cubic yards)

Hopper Width: 2m (6' 7")

Loading Height: 3.13m (10' 3")

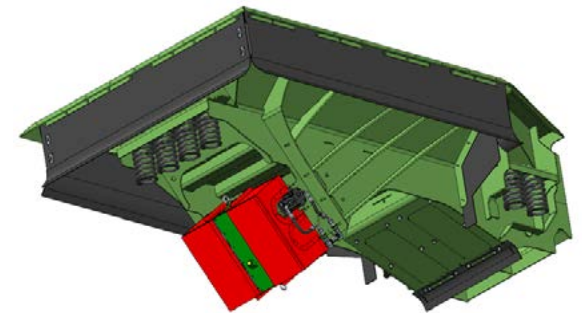
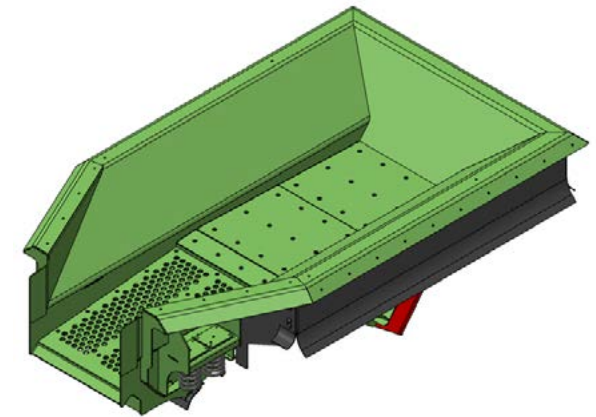
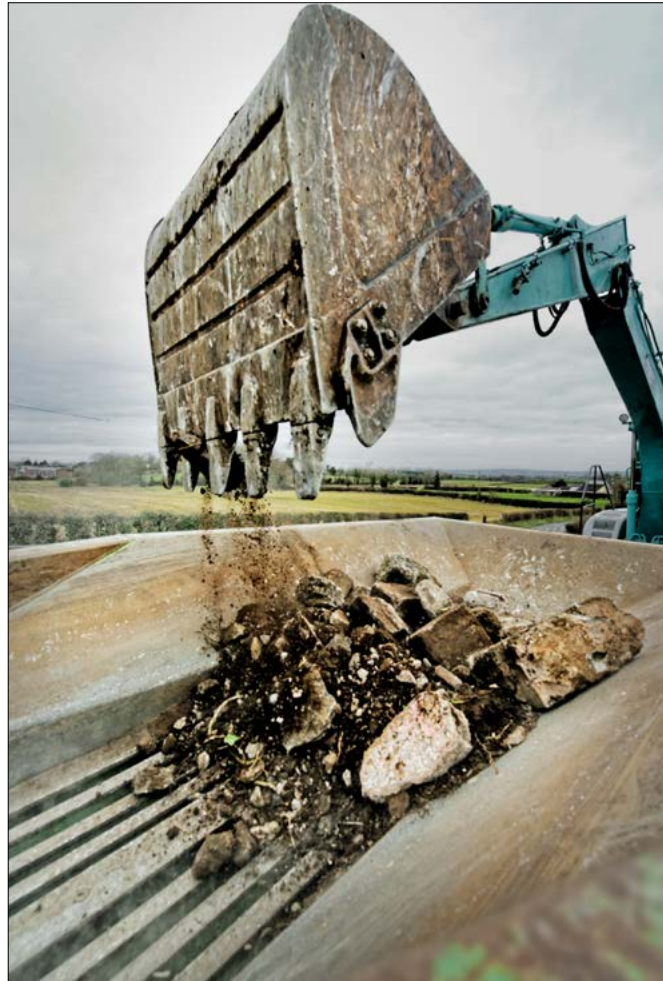
Fabricated from 10mm (3/8") thick wear resistant steel.

Replaceable 10mm (3/8") wear liners on feeder floor.

Proven twin shaft geared vibrator assembly.

Feeder speed automatically regulates depending on engine load.

Optional Bolt on hopper extensions (must be removed for transport).



FEEDER

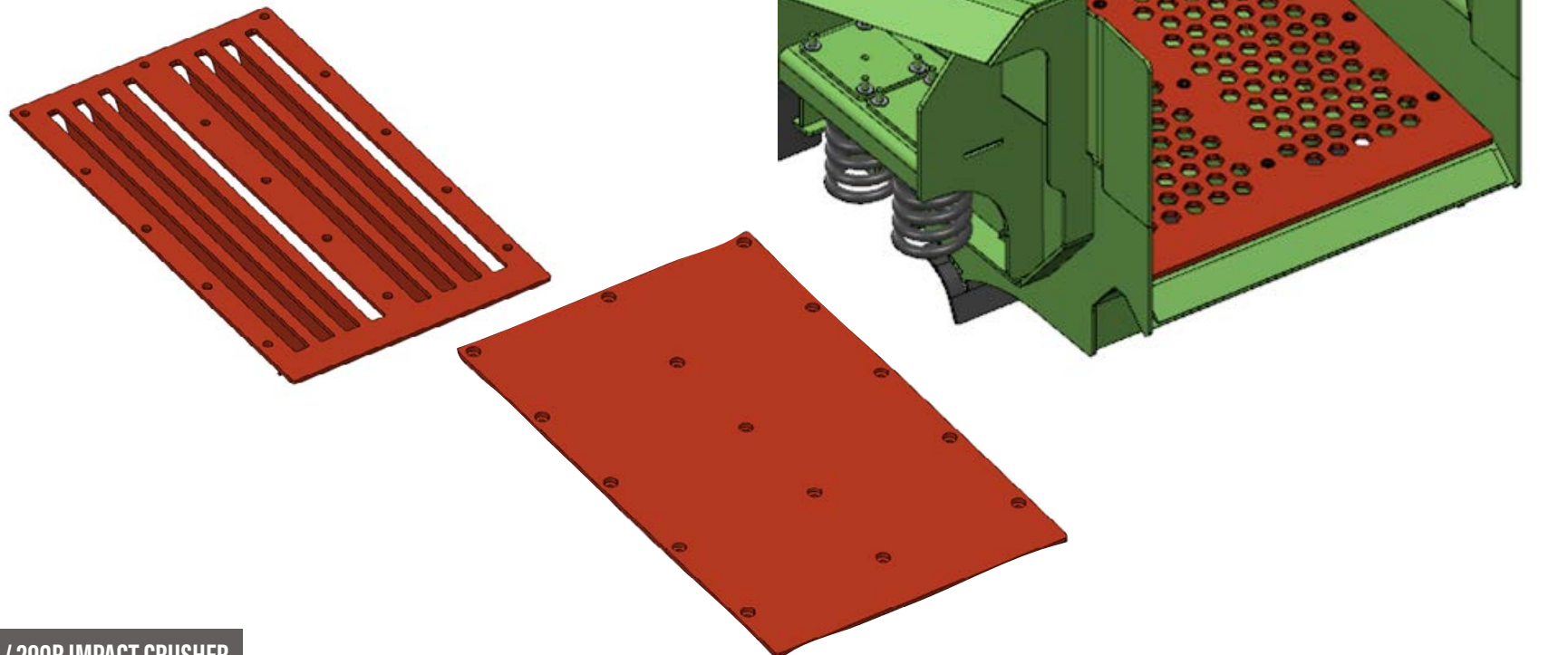
Integrated Pre-Screen for removal of fines.

40mm (1.5") Punch Plate as standard.

Other apertures, Grizzly bars and Blanking Plate available as an option.

All 3 options are fully interchangeable.

Screen area: 1500 x 950mm (5' x 3' 2")



CRUSHER

Proven Terex CR055 Impact chamber

Crusher inlet opening: 1030mm x 790mm (41" x 31").

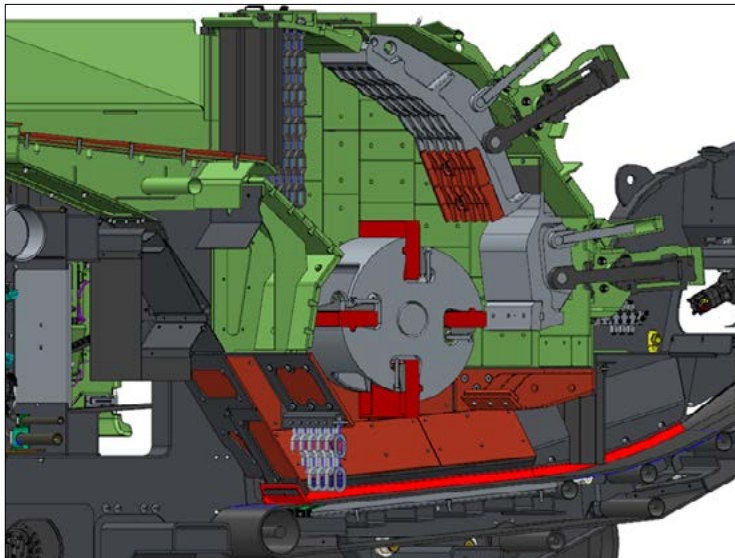
Inlet opening feeder to crusher: 970mm x 680mm (38" x 27")

Hinged Inlet Lid as standard.

Two independent aprons.

Optional Tiled Corrugated primary apron available.

Variable tip speed 34-43m/s depending on pulley configuration.
(630-800RPM).

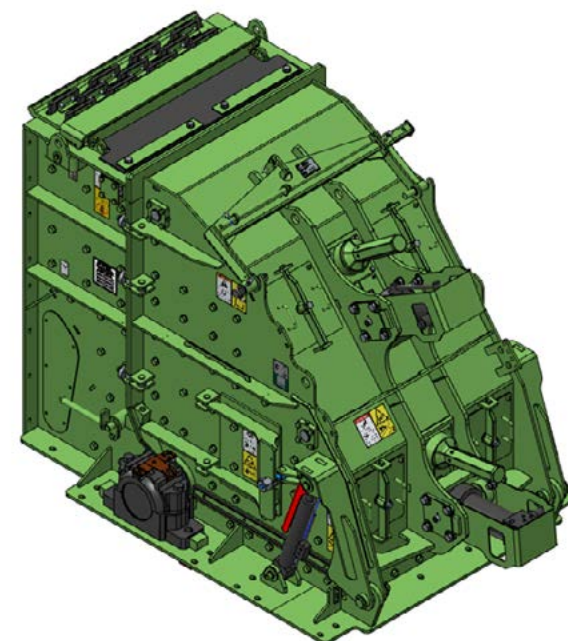


** Please contact the Technical Sales and Applications department if you have any questions on Blowbar selection or Applications.*

CRUSHER

Rotor diameter:	1034mm (41.5")
Rotor width:	1000mm (40")
Overload Protection:	Hydraulic
Apron Configuration:	Two Independently Operated Aprons
Setting Adjustment:	Hydraulic Assist
Max apron setting - Upper:	150mm (6")
Min apron setting - Upper:	50mm (2")
Max apron setting - Lower:	75mm (3")
Min apron setting - Lower:	20mm (0.75")
Side Liners:	20mm (0.75") wear resistant plate (500Hb) as standard
Number of Blowbars:	4 (2 High / 2 Low as standard; 4 High Optional)
Blowbar weight:	205 Kgs (492 lbs)
Blowbar Removal:	Vertically
Max Lump Size*:	450mm ³ (18in ³) / 750mm (30") diagonally / 800x500x250mm (32" x 20" x 10") slab

** Depending on the material specification & blow bar spec.*



The hydraulic cylinders are pre-loaded to minimise apron bounce & wear on the cylinders. This arrangement also greatly reduces the oversize produced and is Patented GB2455203

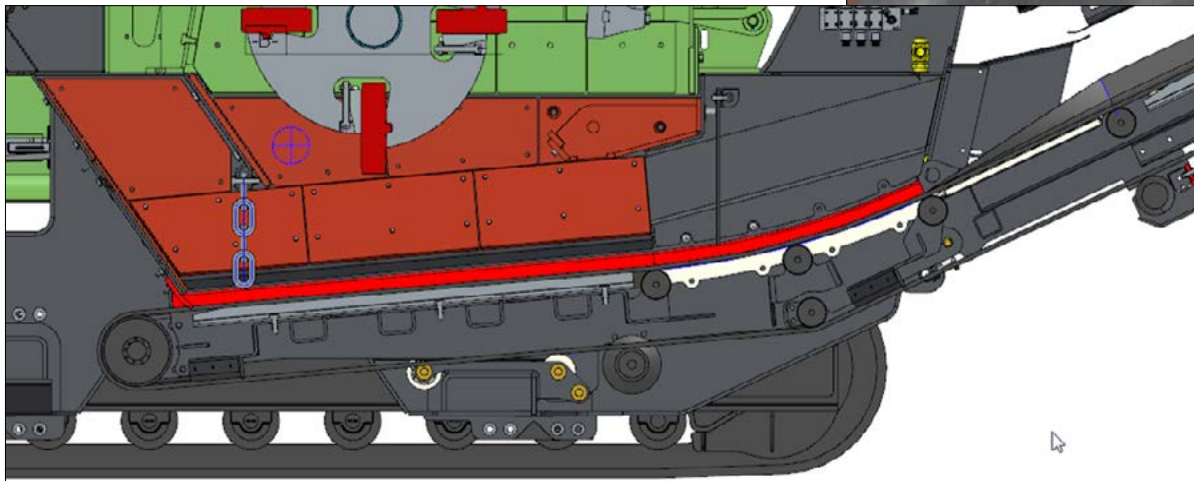
CRUSHER

UNDER CRUSHER CHUTE

Replaceable liners on all sides: 15mm in impact zone, 10mm at bypass chute.

Good clearance from Rotor to Belt: 400mm (16").

Minimal snagging points for rebar / material in recycling applications.



PRODUCT CONVEYOR

Belt width: 1000mm (40")

Belt specification: EP500/3, 8+2 (Steel wire breaker ply)

Discharge height: 3.42m (11' 3") Folding head section for transport

Can be lowered whilst running to aid removal of blockages and also to improve service.

Conveyor can be removed as a unit if required. All electrical / hydraulic connections have connection points on chassis.

High specification head drum scraper



POWER UNIT

Fully enclosed power-unit under vibrating feeder

Tier 3 Equivalent: Volvo D8 235kW (315hp)

Tier 4 Final: Volvo D8 235kW (315hp)

Stage V: Volvo D8 235kW (315hp)

Clutch Type:

Highly efficient, self adjusting HPTO 12 dry plate clutch with electro hydraulic operation.



POWER UNIT

Easy service access with 'walk in' ability at rear to access engine dipstick / filters etc.

Hydraulic components grouped together and electrical components grouped together for easy troubleshooting.

Hinged cooler pack to improve serviceability access and to aid cleaning.

Hydraulic Tank Capacity: 260L (69 US Gallon)



POWER UNIT

CRUSHER DRIVE

Direct drive via 6 SPC drive belts

Easily adjustable belt back tensioner for easy tensioning and belt replacement



DIESEL TANK

Capacity: 450 Litres (119 US Gallon)

Hinged to aid access to skirting rubber

ACCESS PLATFORMS

Ground level access to power-unit.

RHS chamber access via fixed platform and handrails.

LHS access via fixed steps beside operators panel



TRACKS

Heavy duty bolt on track frames

2 speed motor as standard

Sprocket Centres: 3290mm (10' 9")

Shoe Width: 400mm (16")

Gradeability: 30°

Rear rake angle: 15.5°

Front rake angle: 25°



CONTROLS

Intuitive 'push button' Control System.

Machine start-up can be completed by 2 button presses.

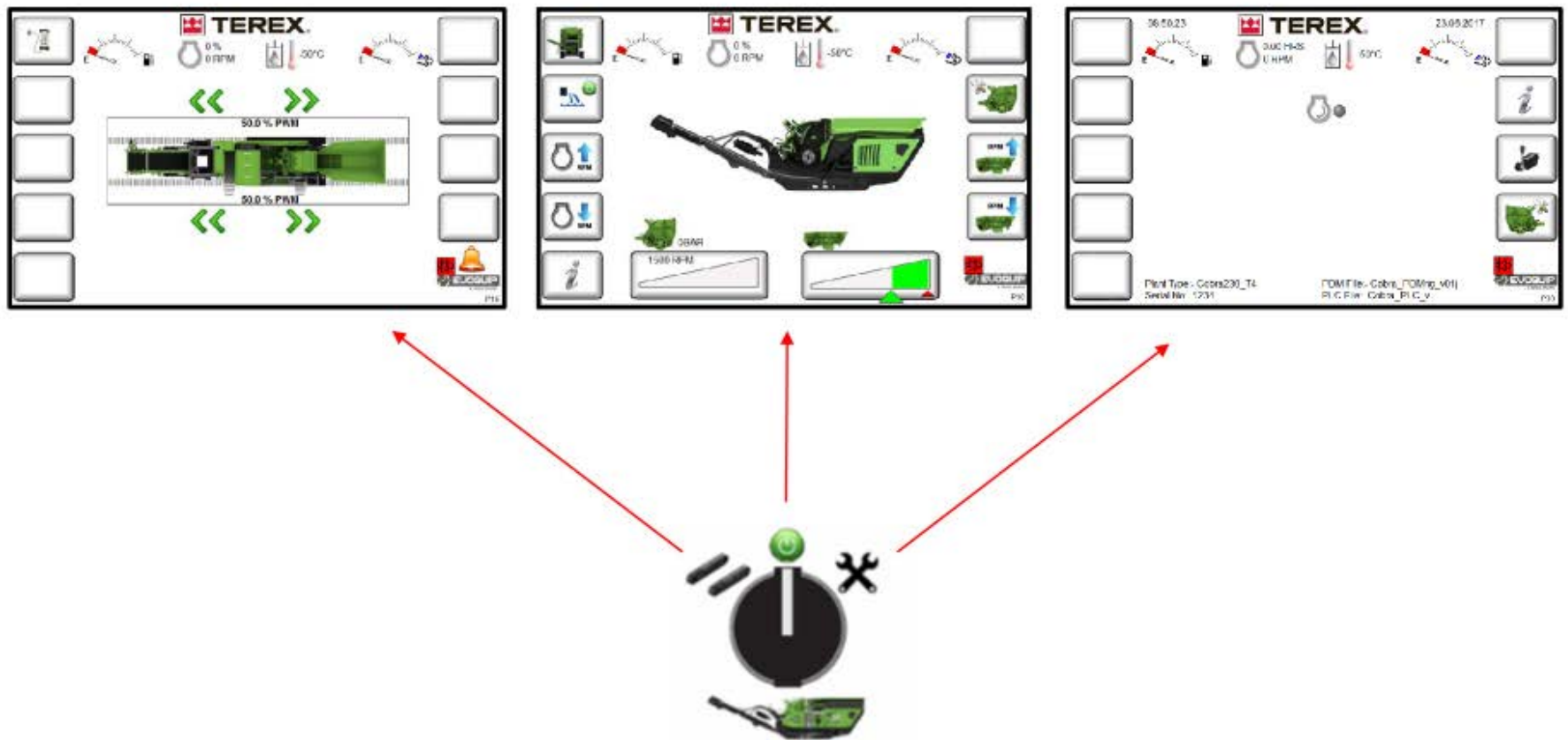
The Main control panel uses a Printed Circuit Board (PCB) solution to improved reliability.



MACHINE
START-UP
CAN BE
COMPLETED
BY 2 BUTTON
PRESSES

CONTROLS

The main operating information screens are navigated by the operating mode selector switch



OPTIONS

Impact Crusher

- Tiled Corrugated Primary Apron.
- Blow Bar Options (High Chrome, Ceramic, 4 full bars).
- Blow bar Gantry.

VGF

- Different Punch Plate Apertures.
- Bolt in Grizzly.
- VGF Blanking Plate.
- Bolt on Protector Plates to hopper to further protect side doors and panels (Note: Transport width increases with this option fitted).

Main Conveyor

- Underpan feeder.
- Quick to Remove Aluminium Dust Covers for Main Conveyor.
- Belt Scale.

By-Pass Conveyor.

Overband Magnet (both Single Pole and Twin Pole options available).

Radio Remote Control.

Hot / Cold Climate Oils.

Plant Lighting.

Telemetry.

Dust Suppression (inc Waterpump).

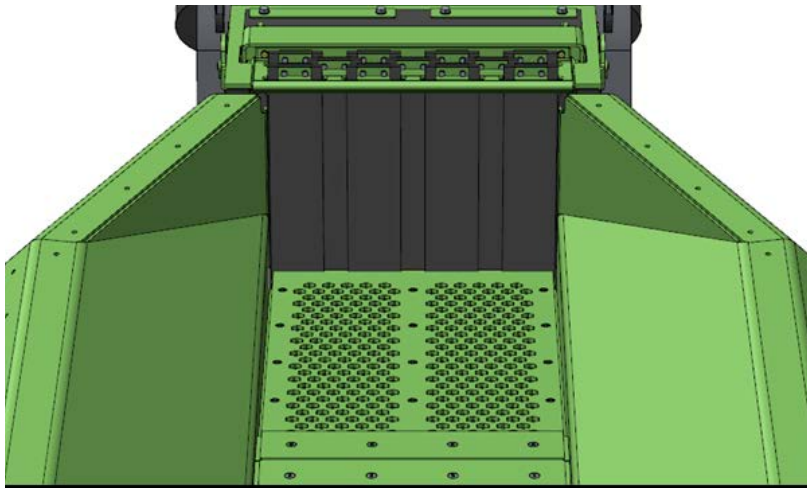
Blowbar Storage Rack (2 bars).

Afterscreen System with Slewing Recirc.

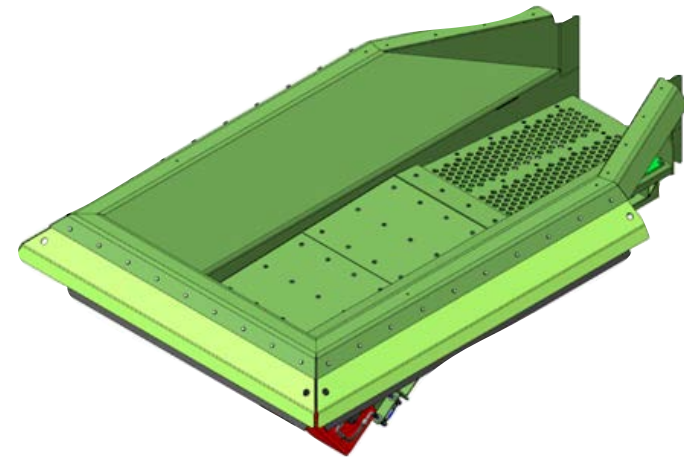
Ability to order machine 'prepped' for Afterscreen.

OPTIONS

VIBRATING FEEDER



Screen Media (Punch Plate, Grizzly Bars, Blanking Plate)



Bolt on protector plates

OPTIONS

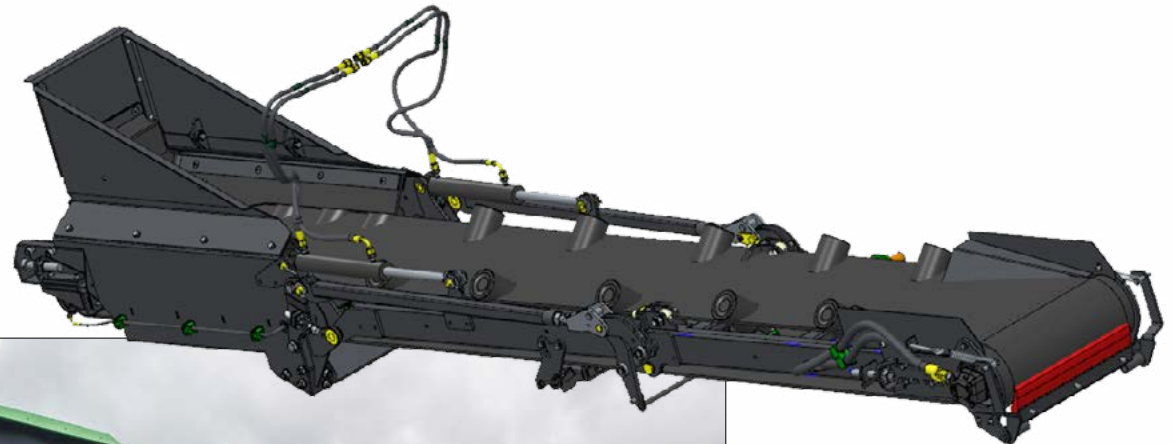
BY-PASS CONVEYOR

Belt width: 500mm (20") wide

Belt specification: EP500/3, 3.5 + 1.5

Discharge height: 2.48m (8'2")

Hydraulically folds for transport



OPTIONS

CHAMBER

Corrugated primary apron



Blowbar Options



Blowbar types available are:-

- Martensitic
- Martensitic Ceramic
- Medium Chrome Ceramic
- High Chrome
- High Chrome Ceramic
- Toughened Chrome

** Please contact the Technical Sales and Applications department if you have any questions on Blowbar selection or Applications.*

OPTIONS

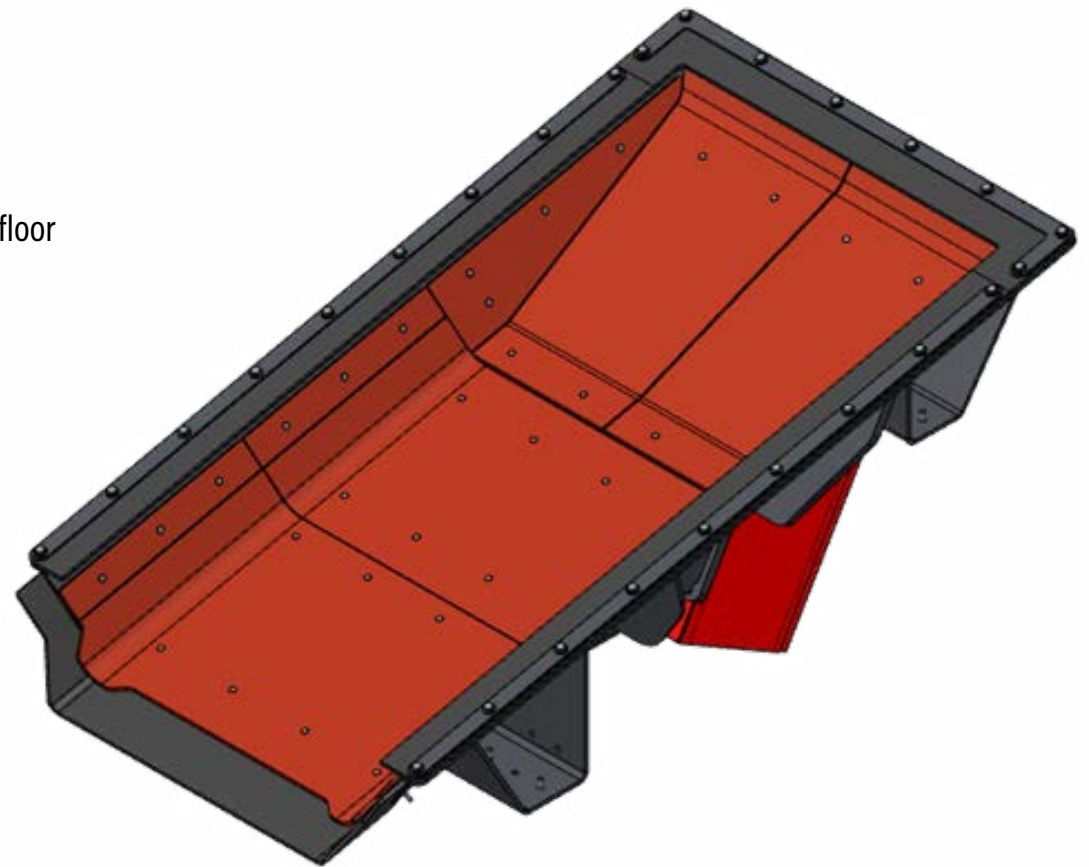
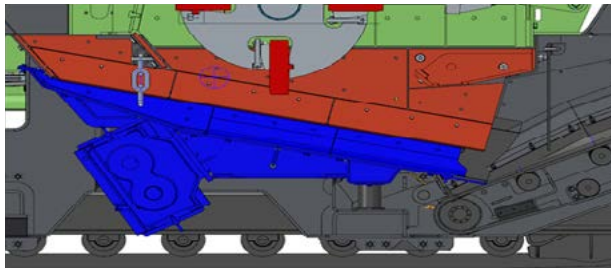
UNDERPAN

Underpan base is 1900mm long

12.5 ° angle (22.5° by-pass material)

275mm (11") clearance between rotor and underpan floor

10mm wear liners



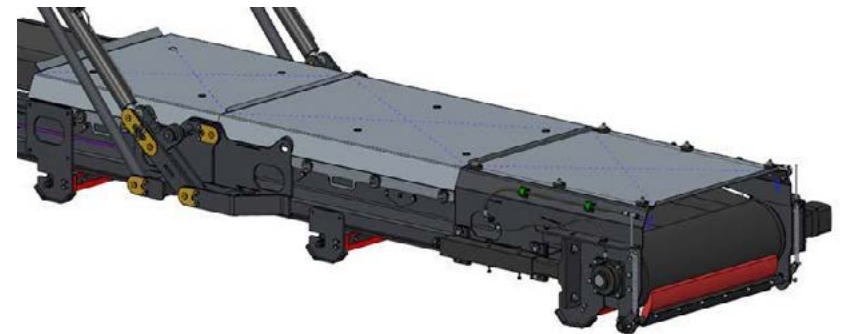
OPTIONS

PRODUCT CONVEYOR

Beltweigher



Dustcovers
(must be removed for transport)



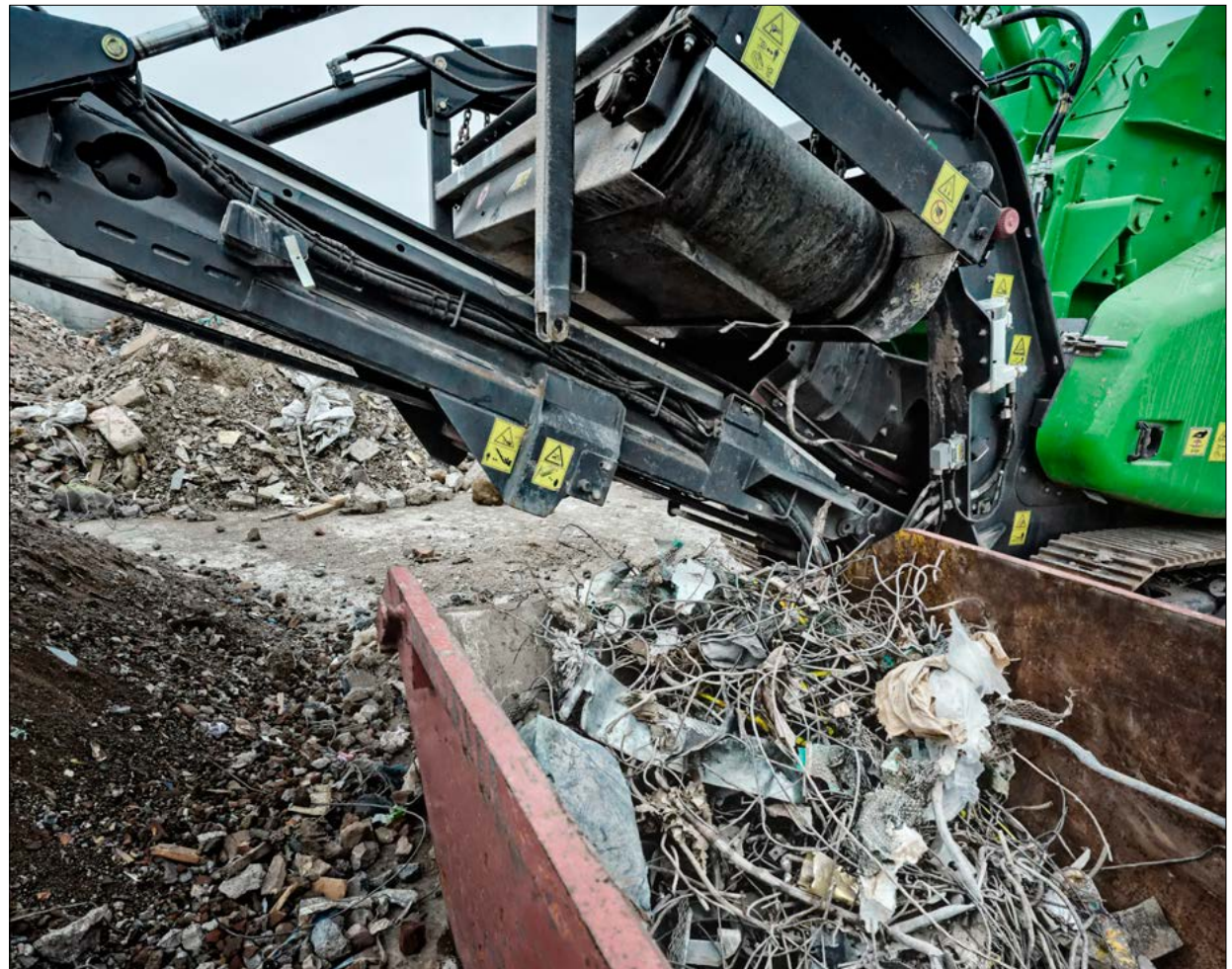
OPTIONS

MAGNET

Single Pole and Twin Pole magnets available as an Option.

750mm (30") Belt width.

The short distance from the crusher discharge to the magnet reduces risk of rebar snagging and blockages.



OPTIONS

AFTERSCREEN

2.74m x 1.5m (9' x 5') single deck screen

Side tensioned mesh

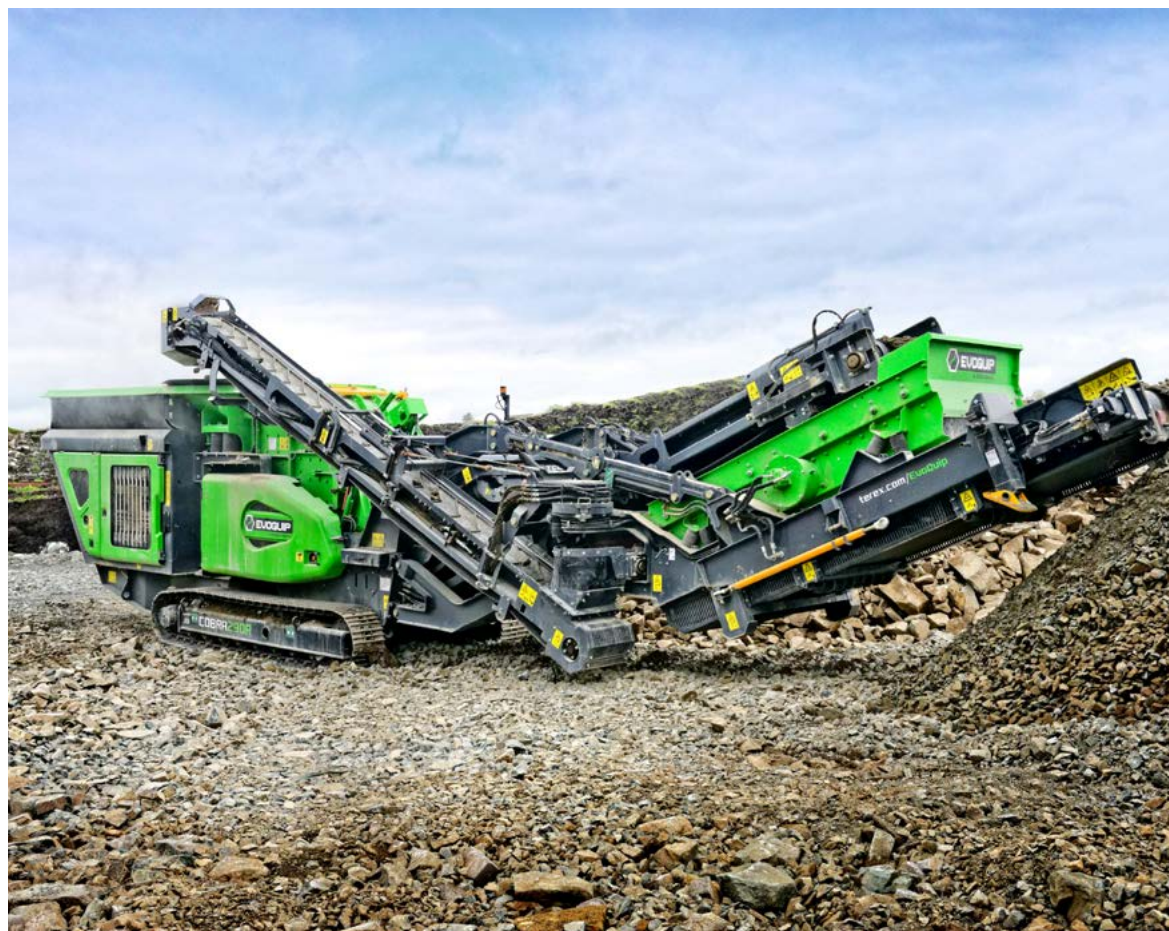
Screen Angle: 25 degrees

Screen Speed: 1200 rpm

Screen Stroke: 7mm

Screen can be lowered to horizontal to ease mesh change and maintenance

Ability to quickly detach the complete Afterscreen system to convert machine to a straight through model or be able to transport it separately



OPTIONS

TRANSFER CONVEYOR

Belt width: 500mm (20")

Belt specification: EP500/3, 5 + 1.5



OPTIONS

OVERSIZE CONVEYOR

Belt width: 500mm (20") Chevron belt

Belt specification: EP315/3 3+1.5 with 15mm cleats

Variable speed

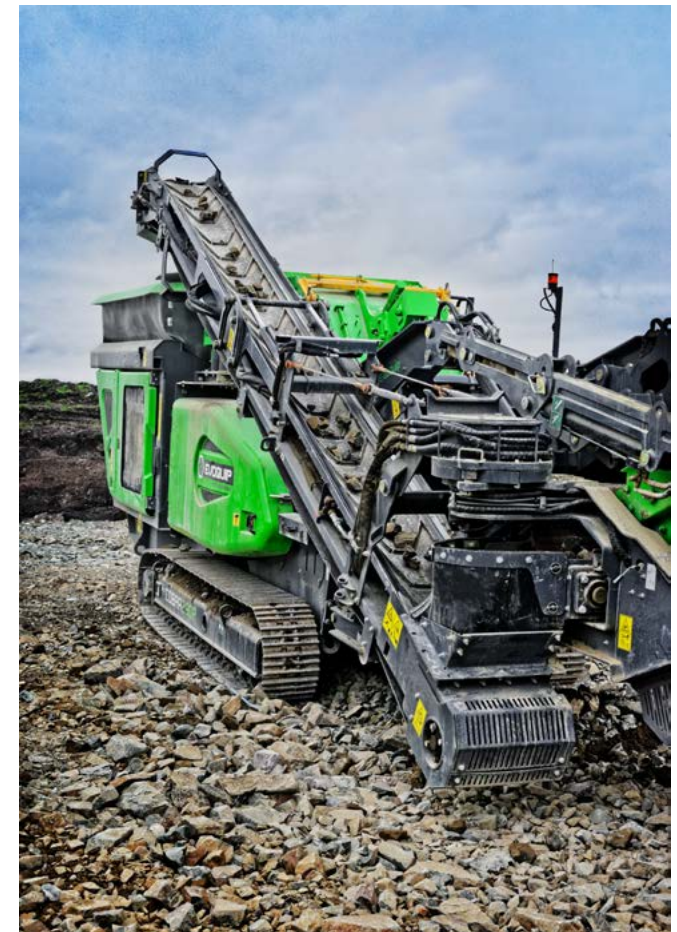
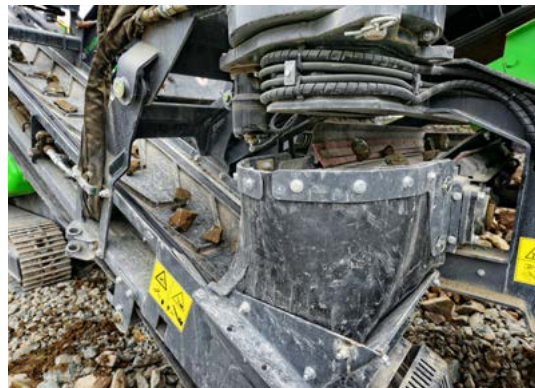
650mm (25") ground clearance beneath conveyor feedboot

Variable speed

Conveyor can hydraulically slew to enable customer to stockpile oversize material

Discharge height in Stockpile mode: 3.2m (10' 6")

Conveyor detaches as part the Afterscreen system



OPTIONS

FINES CONVEYOR

Belt width: 1200mm (47")
Belt specification: EP500/3, 5 + 1.5
Discharge height: 3m (9' 10")



OPTIONS

ELECTRICAL CONTROL

Radio Remote Control



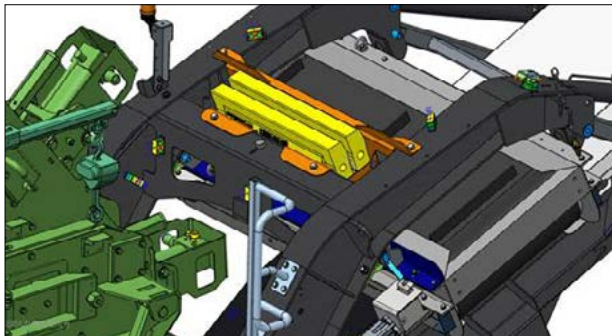
Telemetry



OPTIONS

OTHER OPTIONS

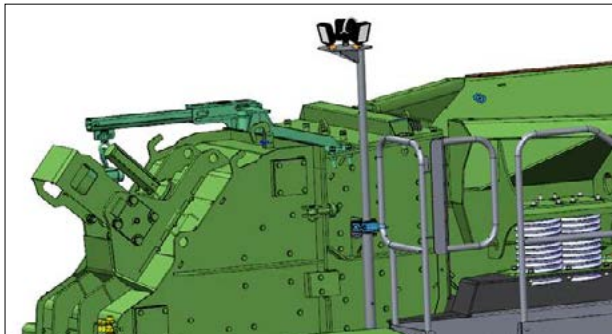
Blowbar Storage Rack



Hot / Cold Climate Oils



Plant lighting Mast

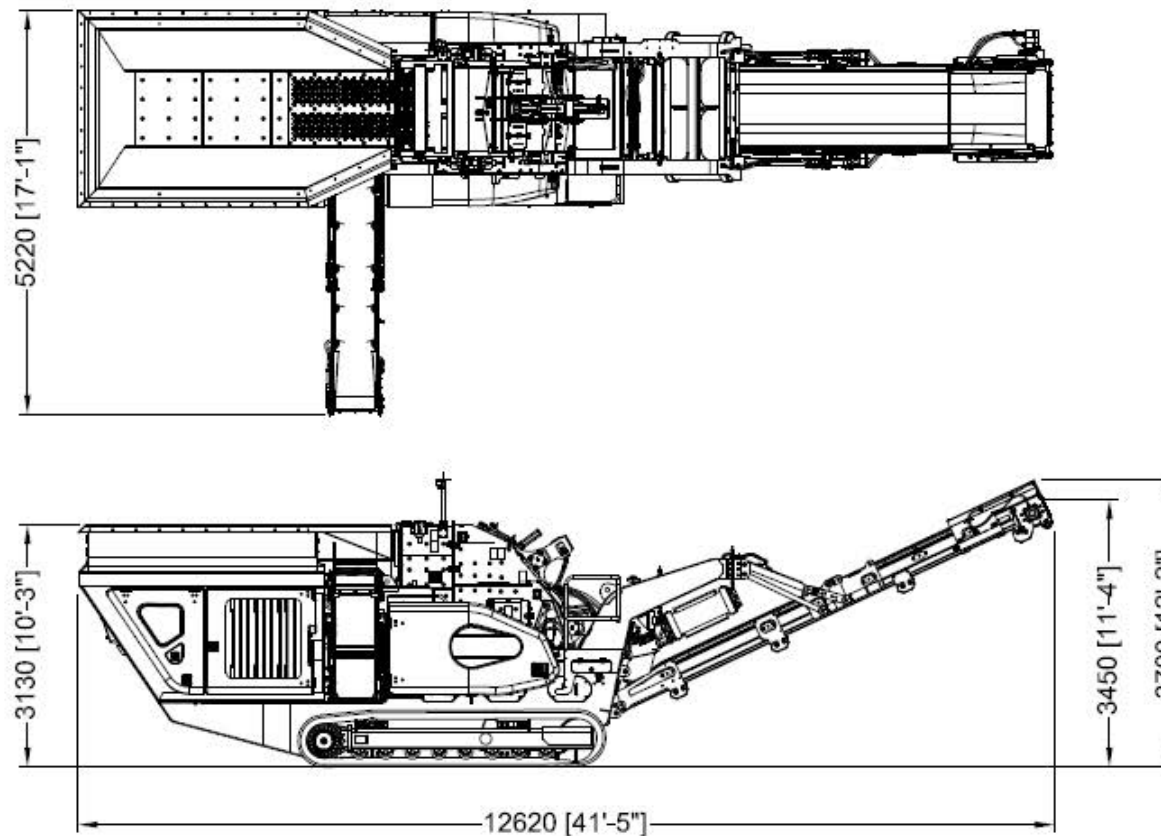


Dust suppression pump



WEIGHTS & DIMENSIONS

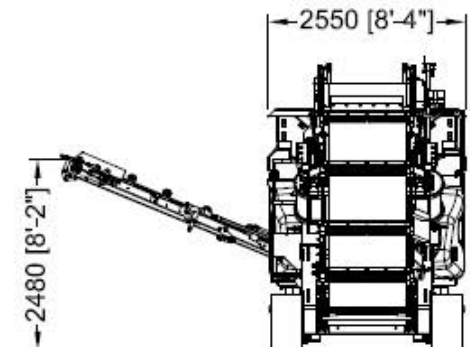
WORKING DIMENSIONS - COBRA 290



Length: 12.6m (41' 5")

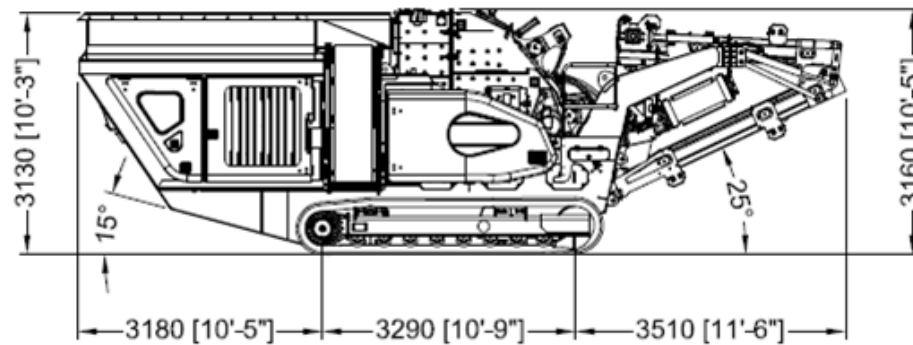
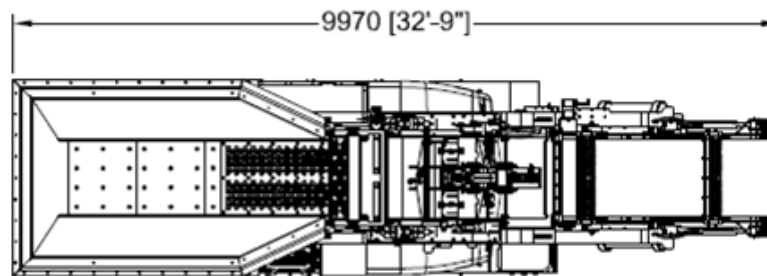
Width: 2.55m (8' 4")

Height: 3.7m (12'2")



WEIGHTS & DIMENSIONS

TRANSPORT DIMENSIONS - COBRA 290

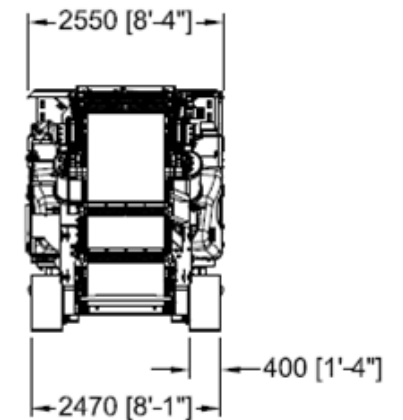


Length: 9.97m (32' 9")

Width: 2.55m (8' 4")

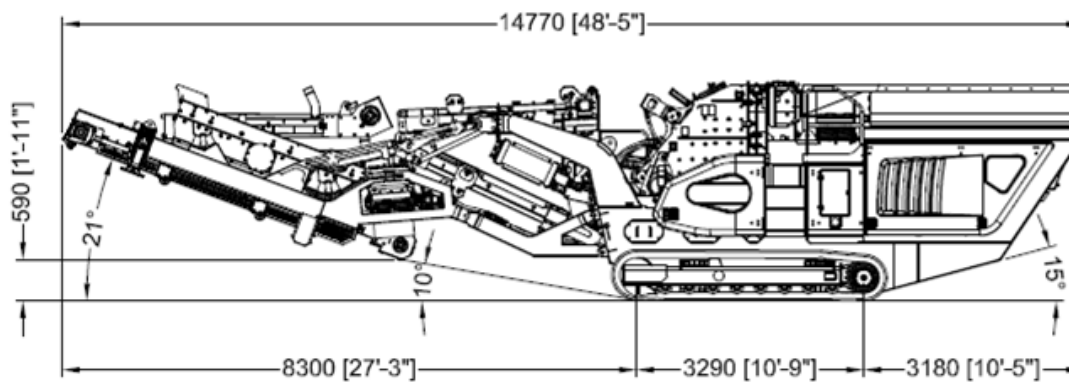
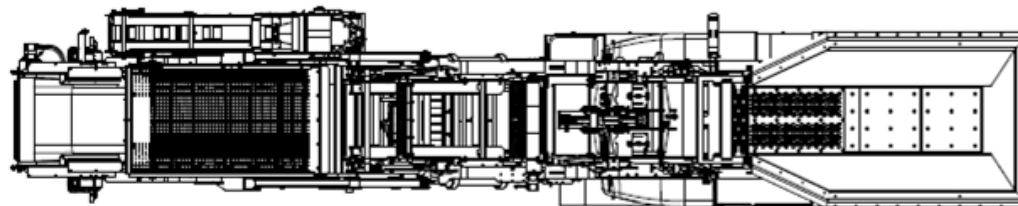
Height: 3.16m (10' 5")

Weight: 28.7mT (63,273lbs)



WEIGHTS & DIMENSIONS

TRANSPORT DIMENSIONS (AFTERSCREEN)

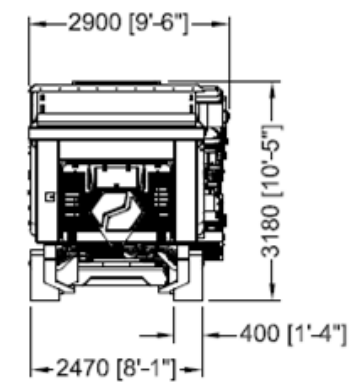


Length: 14.76m (48' 5")

Width: 2.9m (9' 6")

Height: 3.18m (10' 5")

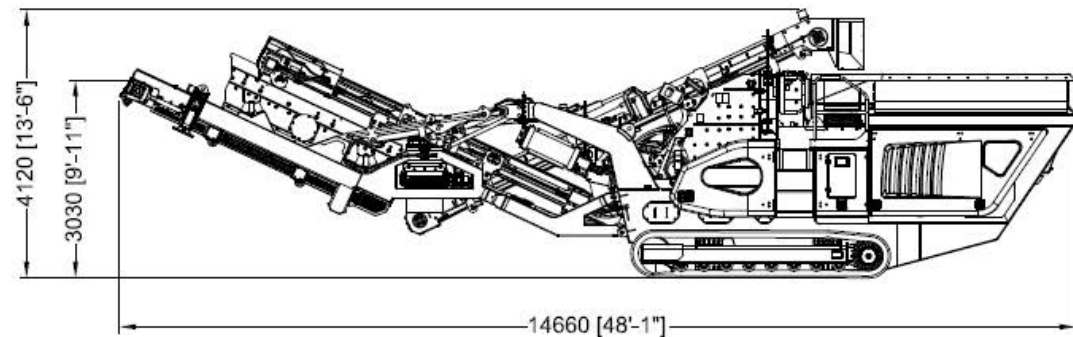
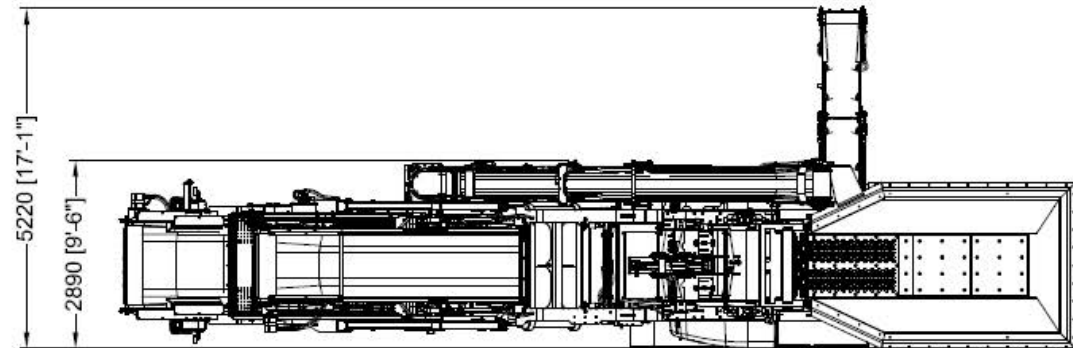
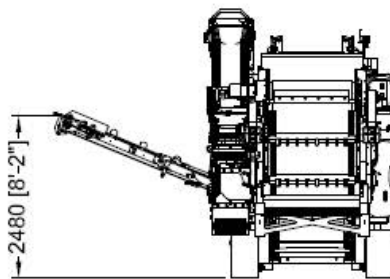
Weight: 34.2mT (75,398 lbs)



WEIGHTS & DIMENSIONS

WORKING DIMENSIONS (AFTERSCREEN)

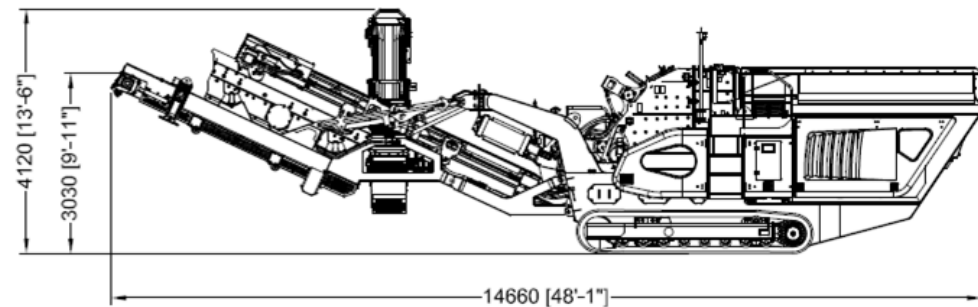
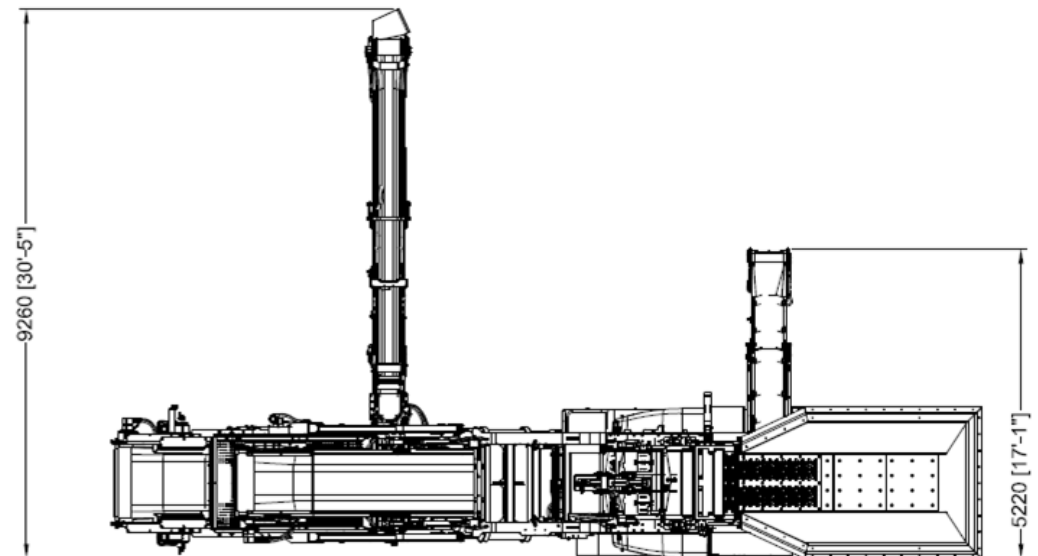
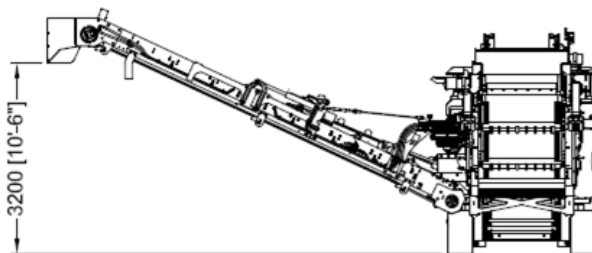
Machine in recirculating mode with side conveyor



WEIGHTS & DIMENSIONS

WORKING DIMENSIONS (AFTERSCREEN)

Machine in stockpile mode with side conveyor



GALLERY & MEDIA



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