

POWERSCREEN® TRAKPACTOR 320SR

HORIZONTAL IMPACTOR



TECHNICAL SPECIFICATION - REV 7.1 01/08/2019





TRAKTRACTOR 320SR



OVERVIEW

SPECIFICATION

Total Weight VGF:	Tier 3: 47,140kg (103,926lbs) Bypass conveyor, twin pole magnet, grinding path Tier 4F: 46,560kg (102,647lbs) Bypass conveyor, single pole magnet
Total Weight PS:	Tier 3: 50,340kg (110,981lbs) Hopper extensions, extended bypass conveyor, 4 high blow bars, twin pole magnet, grinding path Tier 4F: 51,000kg (112,436lbs) 4 high blow bars, extended bypass conveyor, single pole magnet, hydraulic folding mid section
Transport	Length 17.58m (57' 8") Height 3.4m (11' 4") Width 3.1m (10' 2")
Working	Length 17.22m (56' 6") Height 4.71m (15' 5") Width 5.82m (19' 1") with bypass conveyor deployed
Crusher Type:	Twin apron 4 bar impact crusher, feed opening 1130 x 800mm (44.5" x 31.5")
Power Unit	Caterpillar C9 ACERT 261 kW (350hp) or Scania DC9 083A 257 kW (350hp)
Plant Colour	RAL 5021, RAL 7024, RAL 9005

FEATURES & BENEFITS

The Powerscreen® Traktractor 320SR Horizontal Shaft Impactor is a highly compact tracked crusher designed to offer both excellent reduction & high consistency of product yield. The Powerscreen® Traktractor 320SR is designed to give optimum performance in both quarry & recycling applications & is an ideal mid size contractors machine due to it's compact design & mobility.

- Output potential of up to 320 tph / 353 US tph - depending on material type & crusher settings
- Double deck grizzly feeder with under screen
- Load management system to control feeder speed
- Suitable for a variety of feed materials
- Proven Terex impact crusher with hydraulic overload protection, 4 bar rotor & twin apron design
- Crusher speed variation through user friendly PLC control system
- Fully independent under crusher vibrating pan feeder (option)
- Modular conveyor with raise/lower facility to aid clearance of rebar
- Powerful overband magnet (optional)
- Designed to give optimum performance in both quarry, demolition & mining applications
- Hydraulically operated clutch & highly fuel efficient direct drive system
- Independent hydraulic pre-screen for increased fines removal before the chamber (option)
- SR configuration includes a detachable 2 deck 3.3m x 1.5m (11' x 5') post screen and fines conveyor

APPLICATIONS



Aggregate
Blasted rock
River rock



Recycling
C&D waste
Foundry waste



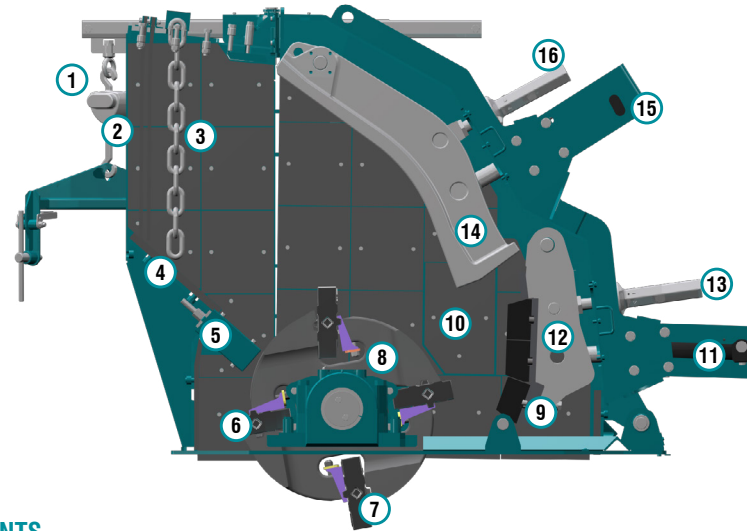
Mining
Processed ores
Processed minerals



TRAKPACTOR 320SR



↓ CRUSHER



PRINCIPAL COMPONENTS

- | | |
|--------------------|------------------------------|
| 1: Crusher Opening | 9-10: Wear liners |
| 2: Rubber Curtain | 11: Control Cylinder |
| 3: Chain Curtain | 12: Bottom Impact Apron |
| 4: Inlet Chute | 13: Apron Adjustment Spindle |
| 5: Inlet Wear bar | 14: Top Impact Apron |
| 6: Full Blow bar | 15: Control Cylinder |
| 7: Half Blow bar | 16: Apron Adjustment Spindle |
| 8: Rotor | |

PRINCIPLES OF OPERATION

Material enters via crusher opening & slides down the inlet chute where it is struck by the blow bars fixed within the rotor. This initial impact breaks the material which is then accelerated towards the top apron where more reduction takes place on impact. This material then falls back onto the blow bars & the cycle is repeated until the material is small enough to pass between the top apron & blow bar. Further reduction occurs on the bottom apron until the material can again pass

through the gap & discharge from the underside of the crusher. Should an un-crushable object enter the chamber, the overload cylinders will relieve & allow the object to pass. The cylinders will then return to the pre-set crushing position. The pre-set gap is adjusted by turning the adjustment spindle whilst the weight of the apron is held on the cylinder (hydraulic assist).

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

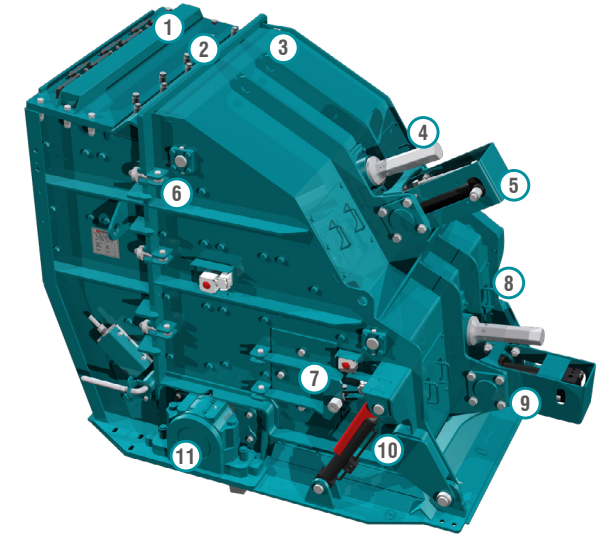


TRAKPACTOR 320SR



CRUSHER SPECIFICATION

Feed opening:	1130mm x 800mm (44.5" x 31.5")
Max lump size*:	450mm ³ (18in ³) / 780mm (31") diagonally / 800 x 500 x 250mm (31 x 20 x 10") slab *depending on material & blow bar specification
Rotor width:	1100mm (43.3")
Rotor diameter:	1030mm (40.5")
Number of aprons:	2
Max clearance:	180mm (7") on both aprons
Max OSS setting:	150mm (6") upper apron, 50mm (2") lower apron
Min CSS setting:	75mm (2.9") upper apron, 20mm (0.75") lower apron
Blow bars:	Total of 4 blow bars
Blow bar removal:	Vertically
Blow bar configuration:	2 full & 2 half (Optional 4 full)
Setting adjustment:	Hydraulic assist
Overload protection:	Hydraulic
Rotor speeds:	595 - 735rpm (32 - 40 m/s) (105 - 131 ft/s)
Applications:	Demolition / recycling / quarry
Crusher weight:	9000kg (19,842lbs)
Full blow bar weight:	220kg (485lbs)
Side liners:	20mm (0.75") thick, abrasive resistant steel



PRINCIPAL COMPONENTS

- 1: Chain curtain cover
- 2: Main welded body
- 3: Impactor hinged section
- 4: Toggle bolts
- 5: Inspector covers
- 6: Hydraulic overload & adjustment cylinders
- 7: Side door
- 8: Inspection covers
- 9: Bearing
- 10: Trunions
- 11: Hinged section opening cylinder



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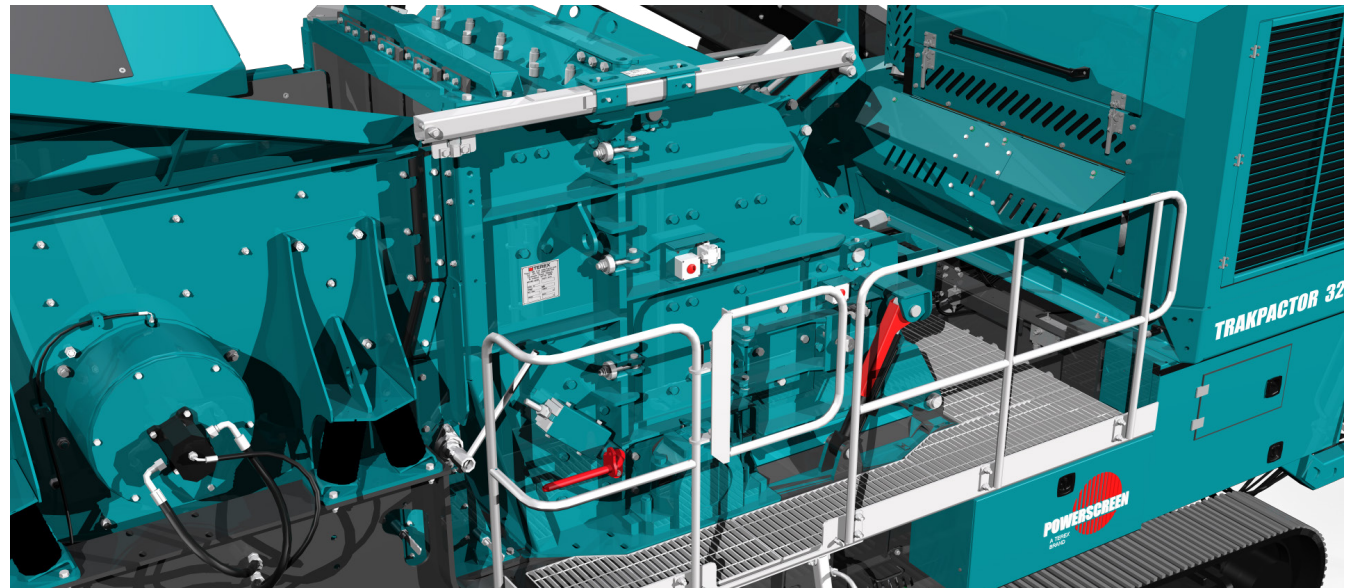
CRUSHER FEATURES

- Crusher body:** Fabricated from steel plate & fully lined with replaceable abrasion resistant liner plates. Hinged side door allows access to apron tips & rotor for gap measurements & inspection. Complete hinged section opens hydraulically to allow blow bar removal & replacement, apron & liner replacement or major maintenance
- Rotor:** Cast steel & fitted with four reversible & replaceable blowbars
- Bearings:** Double row self aligning spherical roller bearing fitted each end of rotor
- Aprons:** Cast steel aprons with replaceable abrasion resistant wear plate on tip of bottom apron
- Drive:** Direct through wedge belts with tensioning system on power unit
- Lubrication:** Grease lubricated rotor bearings fitted with inner & outer independently lubricated heavy duty labyrinth seals
- Blow bars:** Standard blow bar is martensitic steel, options are available in ceramic, medium chrome, medium chrome ceramic, high chrome, high chrome ceramic & toughened chrome

APPLICATIONS

This plant is designed for both demolition & quarrying applications. When fitted with martensitic or ceramic blow bars the crusher will tolerate small quantities of steel reinforcing bar in the feed. However, the machine is not designed to accept large pieces of steel or other un-crushable objects & the feed material should be assessed / inspected for suitability prior to crushing. It is vitally important that large pieces of steel or similar un-crushable objects are not allowed to enter the crushing chamber as severe damage & injury may occur.

When high chrome bars are fitted **all** steel should be removed from the feed material. The machine should only be used on quarry applications or clean materials such as asphalt.





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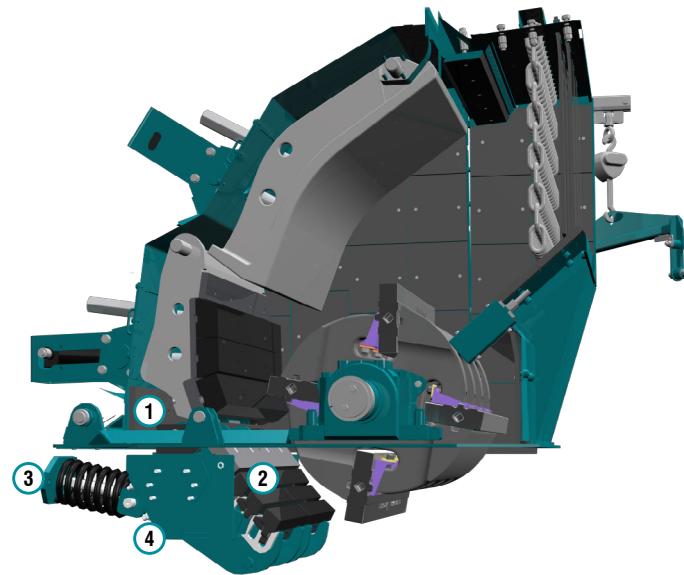
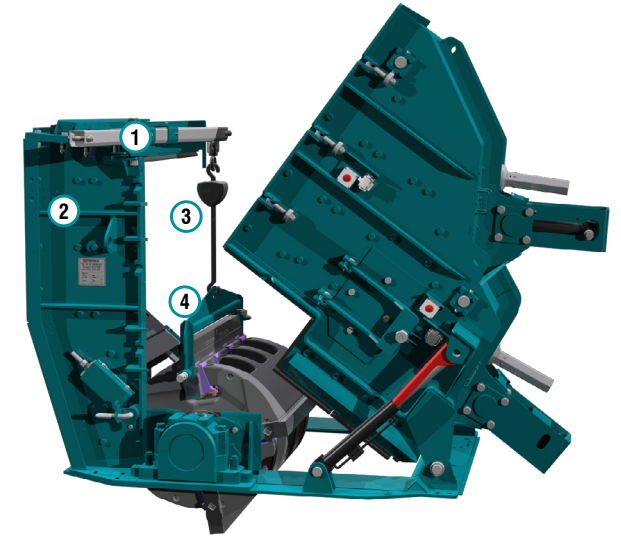


↓ CRUSHER OPTIONS

BLOW BAR JIB CRANE

Part No. CR014-054-601

- 1: Fixes to pre-existing allocated mounting points on chamber fixed body kit provides all necessary parts with no rework required
- 2: Pivot and track facilitates full access to blow bar and swings clear of body during operation with minimal footprint
- 3: 500 kg s.w.l. pulley block
- 4: Designed to work with chamber blow bar cradle



GRINDING PATH

Part No. CR014-193-601

- 1: Lubricated split pivot blocks for ease of maintenance
- 2: Self retained manganese steel grinding rails with abrasion resistant steel top plate
- 3: Lubricated adjusting spindle with provision to fit socket for ease of adjustment
- 4: Kit provides all necessary parts to retrofit to existing feedboot with no rework required



TRAKPACTOR 320SR



↓ HOPPER

VIBRATING GRIZZLY FEEDER HOPPER

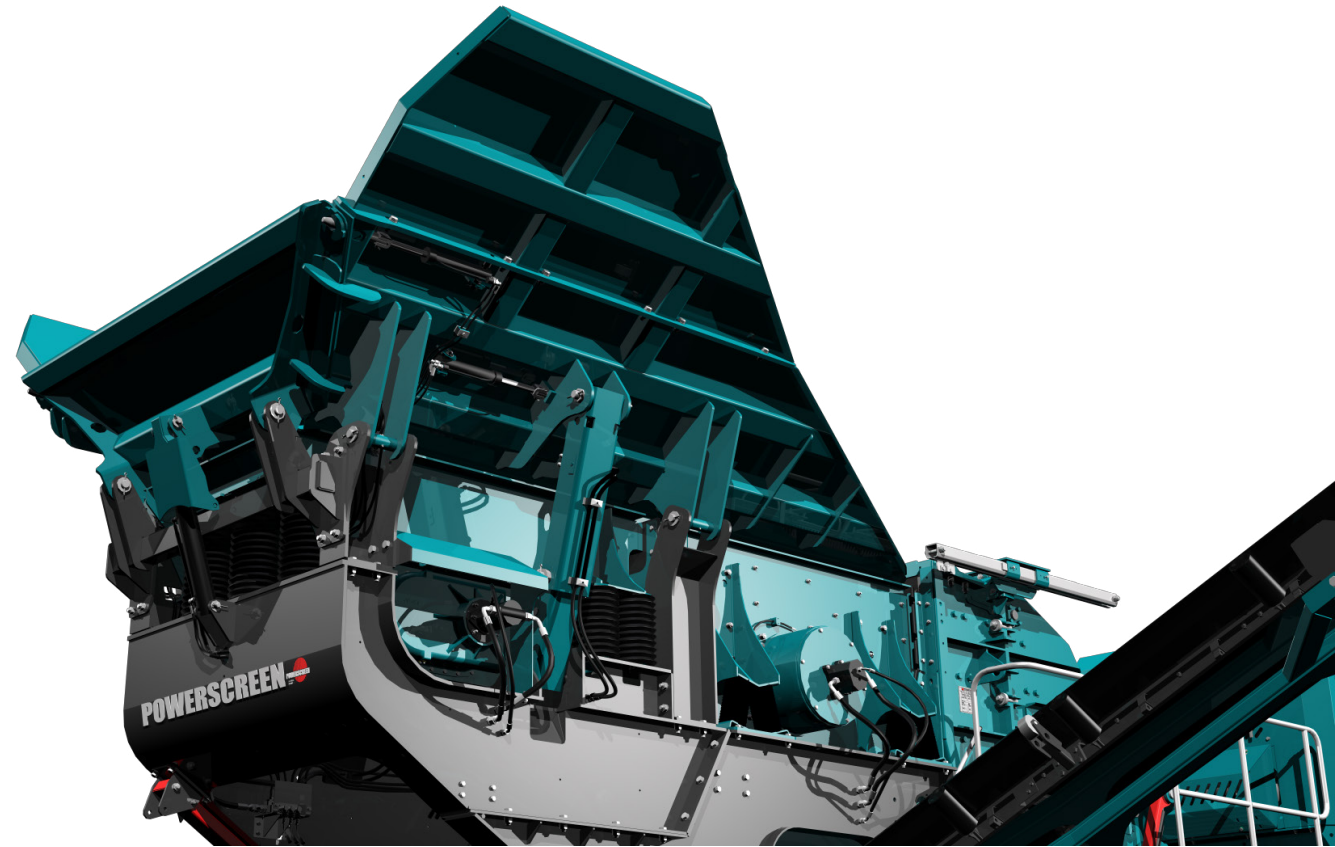
Low profile hopper as standard, rigid hopper sides, no setup required, mounted directly to chassis

Hopper length: 4.04m (13' 3")

Hopper width: 2.1m (6' 11')

Hopper capacity: 6.25m³ (8.2 cu. yd.) / 9m³ (11.8 cu. yd.) with extensions

Hopper body: 8mm thick abrasion resistant steel plate





TRAKPACTOR 320SR

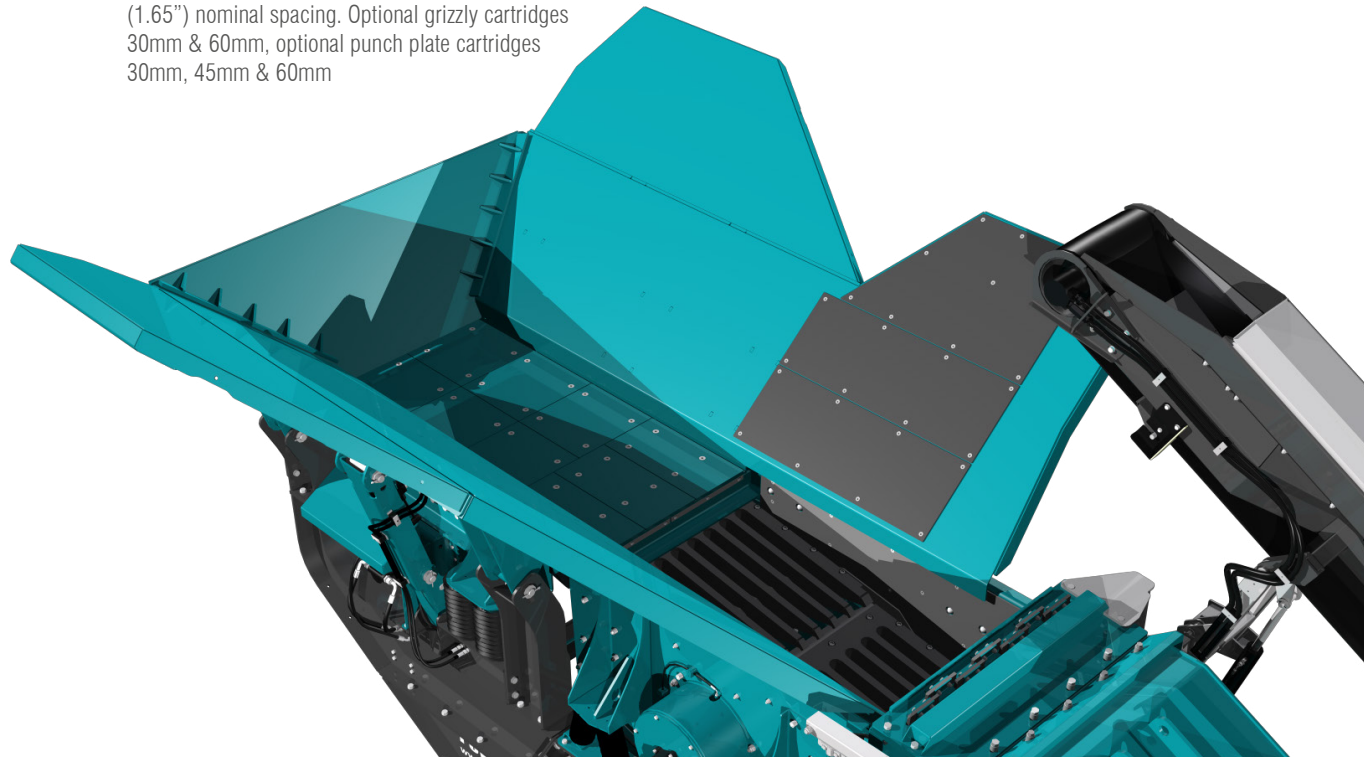


VIBRATING GRIZZLY FEEDER

Vibrating grizzly feeder pan with efficient, self cleaning integral two stage grizzly section

Type:	Fully sprung vibrating pan
Length:	4.04m (13' 3")
Width:	1.08m (3' 6")
Pan:	10mm (0.4") thick abrasion resistant base plate
Drive unit:	Twin heavy duty cast eccentric shafts, running in spherical roller bearings, gear coupled at drive end Flange mounted hydraulic motor
Drive:	
Grizzly:	Two stepped bolt in cartridge sections with 950mm (3' 1") long self cleaning fingers set at 42mm (1.65") nominal spacing. Optional grizzly cartridges 30mm & 60mm, optional punch plate cartridges 30mm, 45mm & 60mm

Screen:	Removable rubber blanking mat fitted as standard, mesh screens optional
Control:	Variable speed control via control panel & on optional radio remote where specified
Chute:	Plant features bypass chute with internal two way flap door that controls the direction of fines, either forward onto product belt or down onto optional side conveyor where specified





TRAKPACTOR 320SR



PRODUCT CONVEYOR

PRODUCT CONVEYOR

Belt type:	Toughflex SW630/2 9+3 Grade X Covers
Width:	1000mm (3' 3")
Discharge height:	3.46m (11' 4")
Stockpile volume:	76m ³ (99 cu. yd.)

DUST SUPPRESSION SYSTEM

Spray bars with atomiser nozzles are mounted over the product conveyor feed & discharge points, piped to an inlet manifold for customer water supply or optional pump.

Type:	Clean water multi atomising nozzles
Inlet:	Single point
Inlet pressure:	3 bar (44 psi)
Water supply:	24 L/min (6.34 G/min) minimum
Frost protection:	Via system main valves
Pump:	Optional





TRACTOR 320SR



POWER UNIT & HYDRAULICS

Tier 3 Equivalent:	Caterpillar C9 ACERT, 6 cylinder, direct injection 261 kW (350hp)
Operating conditions:	Ambient temp. +30°C to -5°C (86°F to 23°F) at altitudes up to 2000m (6562ft) above sea level - For applications outside this range please consult with Powerscreen as the plant performance / reliability may be affected.
Operating rpm range:	1700 - 2100rpm
Plant drive:	High quality pumps driven via belts from engine
Fuel tank capacity:	500 L (132 US Gal)
Tier 4F / Stage IV:	Scania DC9 385A 257kW (350hp)
Operating conditions:	Ambient temp. +30°C to -5°C (86°F to 23°F) at altitudes up to 2000m (6562ft) above sea level - For applications outside this range please consult with Powerscreen as the plant performance / reliability may be affected.
Operating rpm range:	1700 - 2100rpm
Emission control technique:	Selective Catalytic Reduction (SCR)
Reductant tank size:	60 L (16 US Gal)
Plant drive:	High quality tandem pumps driven via engine PTO's
Fuel tank capacity:	500 L (132 US Gal)
Hydraulic tank capacity:	550 L (145 US Gal)
Clutch type:	HPTO 12 Wet clutch, electro hydraulic operation

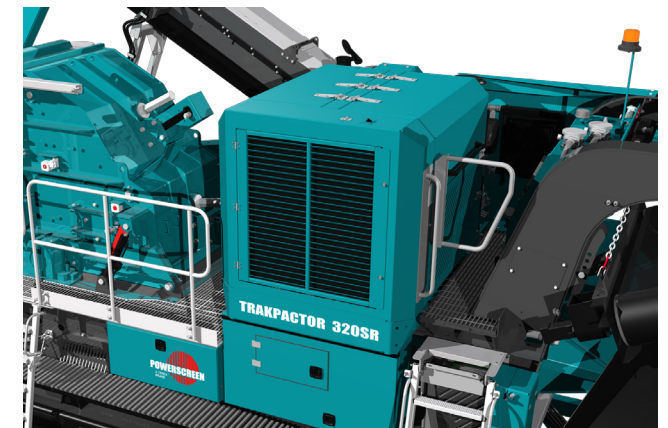
Crusher drive:	Direct drive via wedge belts, Clutch pulley diameter 280mm (11") Crusher pulley diameter 800mm (31.5") Crushing performance can be tuned by changing engine speed between 1700 - 2100rpm on the PLC without significant loss of engine performance
Drive tensioning:	Manually adjustable screw tensioners located under power unit

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 the engine, diluting the intake air and reducing the oxygen concentration. This will reduce the combustion temperature and further reduce emissions.





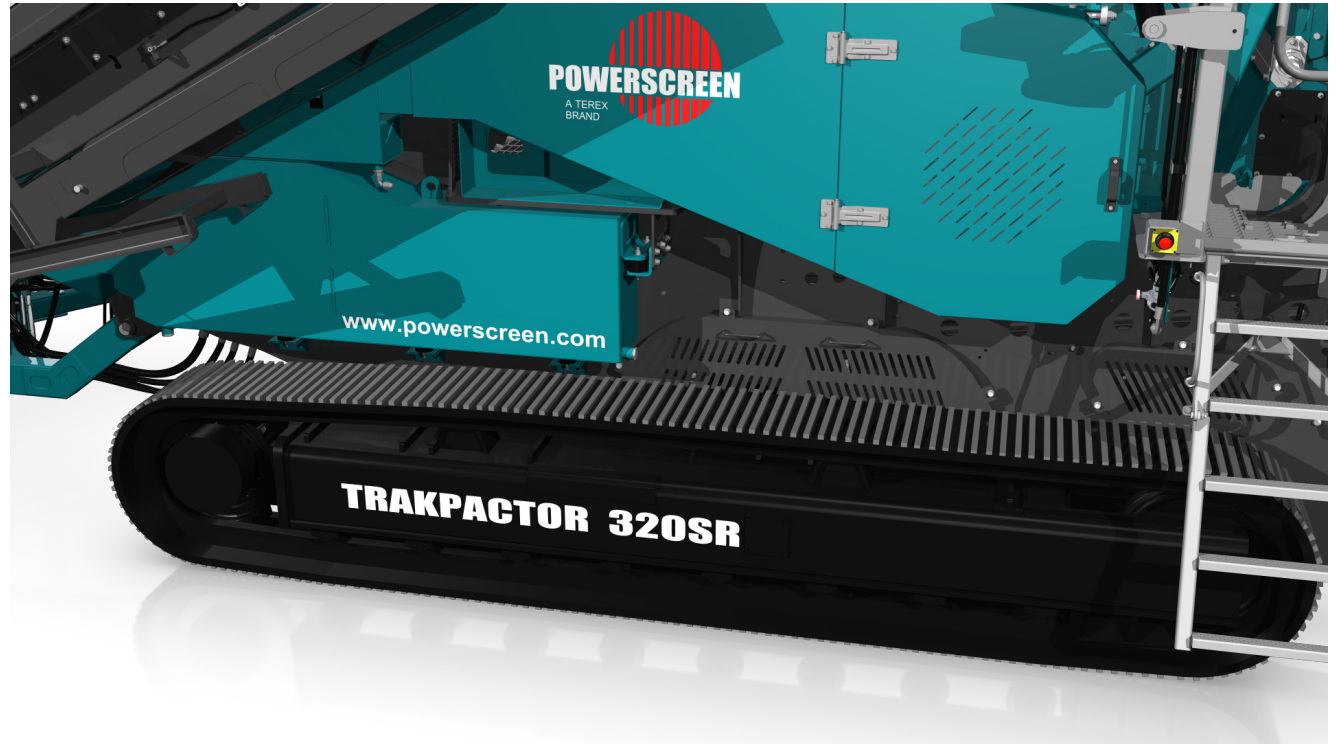
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↓ TRACKS

TRACKS

Type:	Heavy duty, 2 speed, bolt on
Sprocket centres:	3.84m (12' 7")
Track width:	400mm (1' 7")
Gradeability:	30° maximum
High speed:	1.2kph (0.75 mph)
Drive:	Hydraulic
Tensioning:	Hydraulic adjuster, grease tensioned





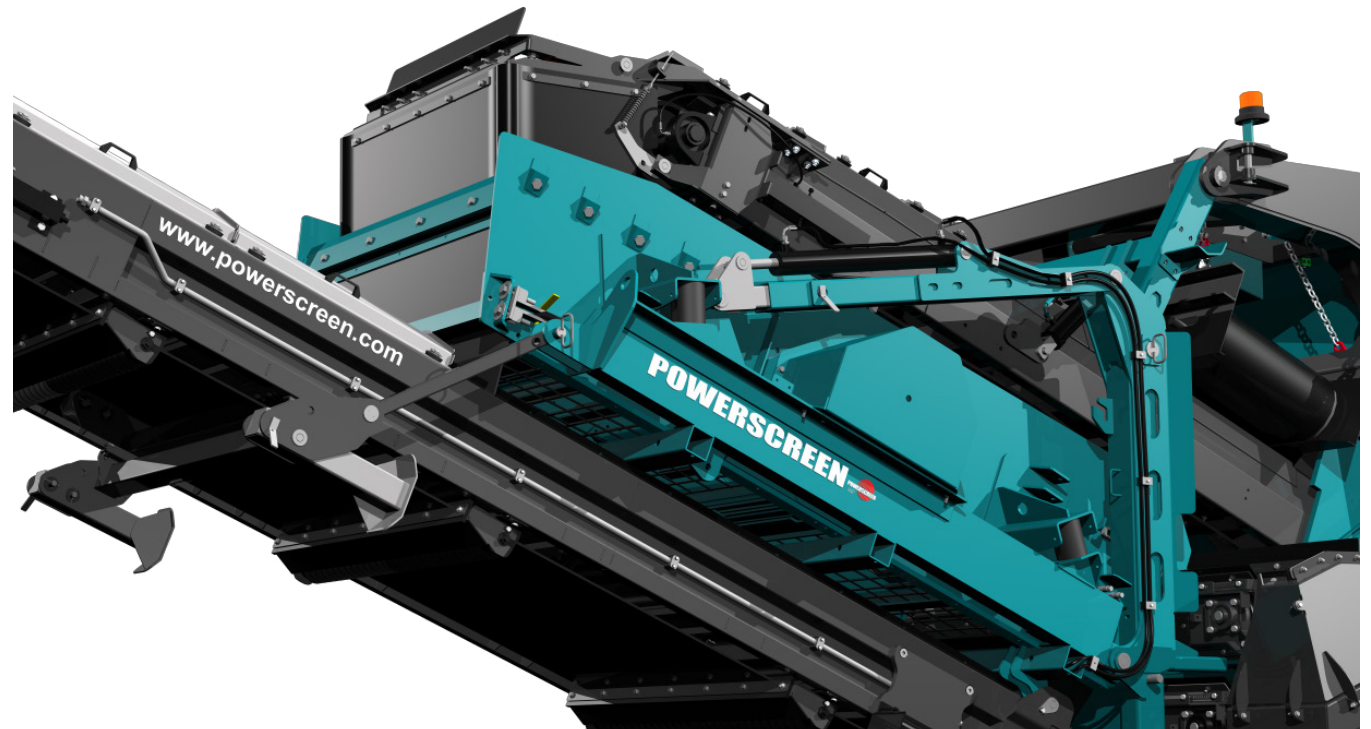
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↓ POST-SCREEN

DOUBLE DECK POST-SCREEN

Type:	4 bearing, double deck vibrating screen
Size:	3.35m x 1.52m (11' x 5')
Screen Angle:	Can be varied between 19°-23°
Drive:	Hydraulic drive
Top deck:	45mm aperture fitted as standard
Bottom deck:	Optional mesh
Lubrication:	Grease nipples (4 in total)
Access:	Screen & fines conveyor can be lowered for maintenance





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↓ CONVEYORS

TOP DECK - TRANSFER CONVEYOR

Belt type:	Plain belt, EP500/3 with 5mm top & 1.5mm bottom rubber covers & vulcanised joint
Belt width:	500mm (1' 8")
Drive:	Direct drive hydraulic motor
Lubrication:	118m ³ (154 cu. yd.)

OVERSIZE - RECIRCULATING CONVEYOR

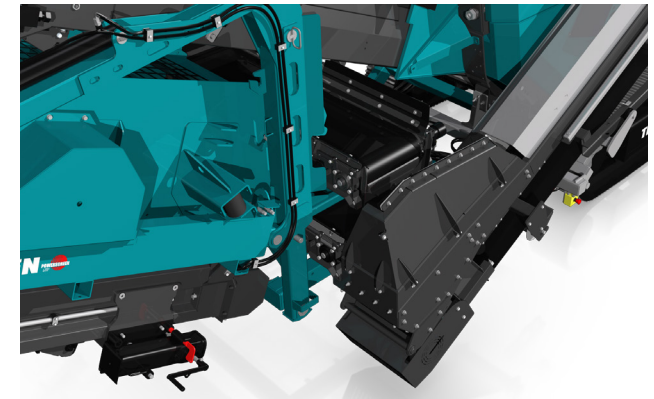
Conveyor type:	Chevron type troughed belt
Belt type:	EP500/3 with 3mm top & 1.5mm bottom rubber covers, 25mm cleats & vulcanised joint
Conveyor:	Returns oversize material from the top deck back to the impactor for crushing. Conveyor can be mounted at 90 degrees to the plant to enable oversize material to be stockpiled at the side of the plant
Width:	500mm (1' 8")
Drive:	Direct drive hydraulic motor
Lubrication:	Grease nipples on tail drum shaft bearing, remote grease nipples for head drum
Discharge height:	4.7m (15' 5")
Stockpile volume:	191m ³ (250 cu. yd.)

FINES CONVEYOR (POST-SCREEN)

Conveyor type:	Plain troughed belt
Belt type:	EP500/3 with 5mm top & 1.5mm bottom covers, vulcanised joint
Width:	1400mm (4' 7")
Discharge height:	3.02m (9' 11")
Stockpile volume:	51m ³ (66 cu. yd.)
Drive:	Direct drive hydraulic motor

BOTTOM DECK - TRANSFER CONVEYOR

Function:	Transfers material from bottom deck of sizing screen to optional plant mounted stockpiling conveyor or re-circulating conveyor
Belt type:	EP500/3 with 5mm top, 1.5mm bottom covers, vulcanised joint
Belt width:	500mm (1' 8")
Drive:	Direct drive hydraulic motor
Lubrication:	Grease nipples on head & tail shaft bearings





TRAKFACTOR 320SR



PLANT CONTROLS & OTHER

GUARDING

Wire mesh or sheet metal guards are provided for all drives, flywheels, pulleys & couplings.
The guards provided are designed & manufactured to CE & ANSI standards.

CHASSIS

Heavy duty I-Section welded construction, provides maximum strength & accessibility
8mm thick web
15mm thick flange
Modular chassis between pre-screen & VGF

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 dirt conveyor (start/stop)
- Feeder (start/stop/speed) controls, located on the side of the plant

UMBILICAL CONTROL

An umbilical control unit is supplied as standard with the plant.
Controls tracking function & has a stop button for the plant.





TRAKPACTOR 320SR



↓ OPTIONS

EXTENDED HOPPER

Hydraulic folding hopper with over centre struts. Hydraulic hopper lock system operated at ground level

Hopper width:	4m (13' 1")
Hopper capacity:	9m ³ (11.8 cu. yd.)
Hopper body:	8mm (0.31") thick abrasion resistant steel plate
Weight:	1100kg (2425 lbs)

BYPASS CONVEYOR

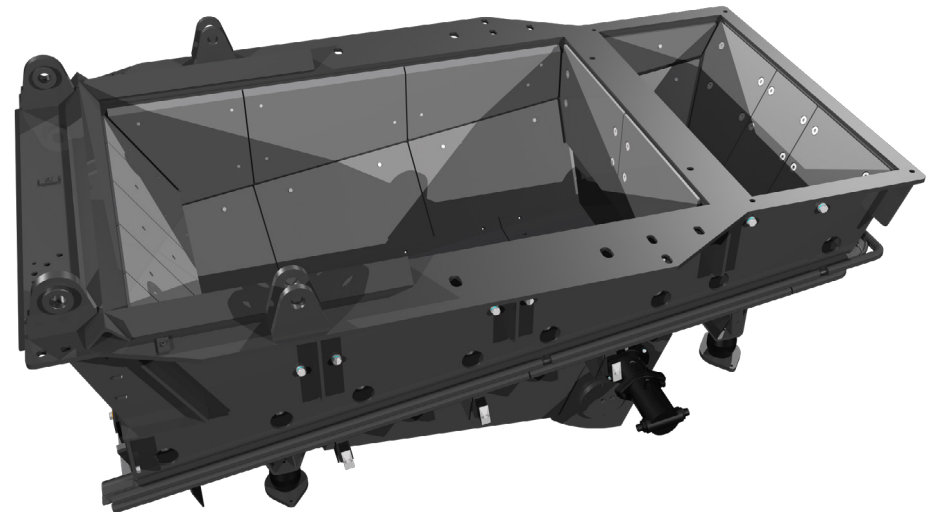
Belt:	EP250/2 with 3mm top & 1.5mm bottom heavy duty rubber covers, vulcanised joint
Type:	Steel troughed roller, hydraulic folding
Width:	650mm (2' 2")
Discharge:	2.72m (8' 11")
Stockpile volume:	37m ³ (48 cu. yd.)
Drive:	Direct drive hydraulic motor
Position:	Discharge on RHS of plant. LHS variant available
Weight:	1030 kg (2270 lbs)

FEEDER UNDERSCREEN MESH

Position:	Replaces standard blanking mat, used in conjunction with optional bypass conveyor
Sizes:	10, 20, 30, 40, 50mm

VIBRATING UNDERPAN FEEDER

Type:	Steel bodied vibrating feeder fitted
With:	Abrasion resistant liners, mounted under the crusher & designed to prevent any damage to the product conveyor belt
Width:	1.1m (3' 7")
Length:	2.47m (8' 1")
Drive:	Hydraulic, out of balance exciter unit
Note:	When a vibrating underpan feeder is selected, the short product conveyor belt which accompanies will have the following specification: EP500/3 8+2





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↓ OPTIONS 2

VIBRATING PAN FEEDER

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
Length:	2.15m (7' 1")
Width:	1.08m (3' 7")
Pan:	12mm thick replaceable abrasion resistant liners

LIVE PRE-SCREEN

Pre-screen:	Sprung vibrating unit with stepped finger bofor deck
Vibrating unit:	Single shaft, out of balance weights, flange mounted hydraulic motor
Bofor deck:	2 stepped bolt in cartridges 50mm (2") nominal spacing 9mm throw 1000rpm screen speed

Dimension (top deck):

Length:	2m (6' 7")
Width:	1.06m (3' 6")
Mesh deck:	38mm (1.5") nominal spacing 17° incline

Dimension (bottom deck):

Length:	1.6m (5' 3")
Width:	1.06m (3' 6")

Chute: Bypass chute with internal 2 way flap door fitted, to control direction of fines, either forward onto the product belt or onto the optional side conveyor (if blanking mat is fitted)

Modular section: Hopper & feeder mounted on removable modular subframe

PRE-SCREEN HOPPER

Hydraulic folding hopper with over centre struts. Hydraulic hopper lock system operated at ground level.

Hopper width:	2.53m (8'4")
Hopper capacity:	6.25m ³ (8.2 yd ³)
Hopper body:	8mm (0.31") thick abrasion resistant steel plate

PRE-SCREEN HOPPER EXTENSIONS (BOLT-ON)

Hopper width:	4m (13' 2")
Hopper capacity:	9m ³ (11.8 yd ³)
Weight:	540kg (1190 lbs)

EXTENDED BYPASS CONVEYOR*

Belt:	EP250/2 with 3mm top & 1.5mm bottom heavy duty rubber covers, vulcanised joint
Type:	Steel troughed roller, hydraulic folding
Belt width:	650mm (2' 2")
Discharge:	3.78m (12' 5")
Stockpile volume:	100m ³ (130 cu. yd.)
Drive:	Direct drive hydraulic motor
Position:	Discharge on RHS of plant std LHS variant available *only available with pre-screen

Weight: 1250 kg (2755 lbs)



TRAKTRACTOR 320SR



↓ OPTIONS 3

MIDSIZE - STOCKPILING CONVEYOR

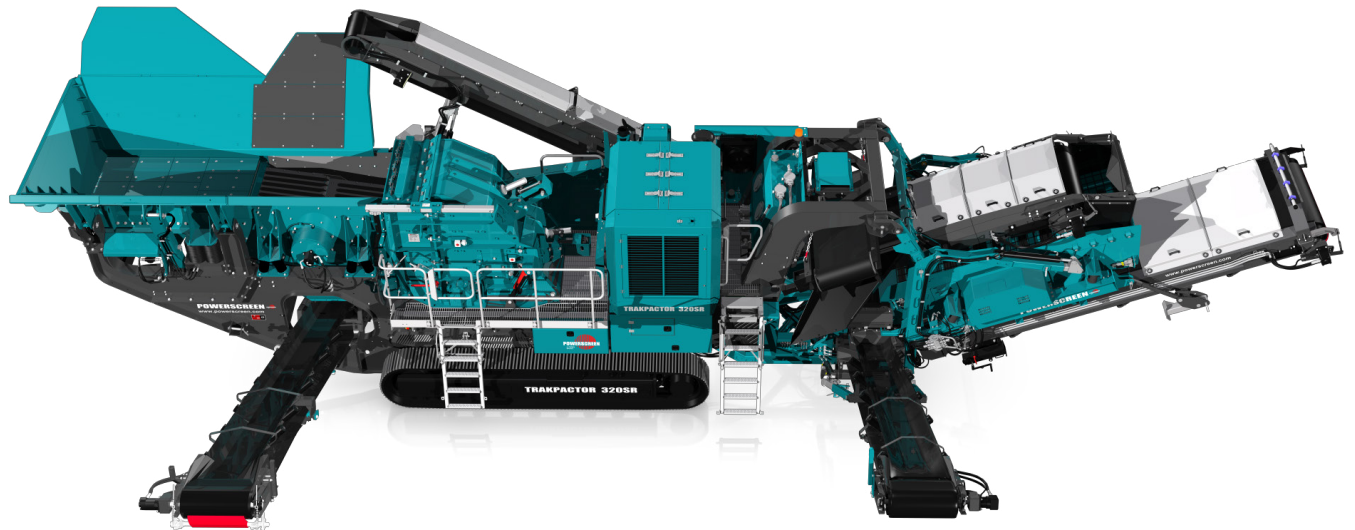
Function:	Stockpiles material from bottom deck, via side transfer conveyor
Conveyor type:	Chevron type troughed belt
Belt type:	EP400/3, 3mm top, 1.5mm bottom covers, 25mm cleats, vulcanised
Width:	500mm (1'8")
Discharge Height:	4.2m (13' 9")
Stockpile volume:	110m ³ (144cu. yd.)
Drive:	Direct drive hydraulic motor
Lubrication:	Head drum - remote greasing, nipples on tail shaft bearings *Hydraulically folding for transport (optional)

OVERBAND MAGNET

Magnet type:	Single Pole (SP), Twin Pole (TP) & Heavy Duty Twin Pole (HTP) available.
Belt width:	750mm (2' 6")
Centres:	1700mm (5' 7")
Drive/Control:	Direct drive hydraulic motor / pre-set variable speed
Weight:	SP 975kg / TP 1470kg / HTP 2300kg

RECIRCULATING CONVEYOR DUST COVERS

Optional dust suppression covers available to cover full length of recirculating conveyor.





TRAKTRACTOR 320SR



↓ OPTIONS 4

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 Powerscreen sales & applications department with any queries.

Hot climate oils - (Recommended for ambient temperatures between +15 to +50°C)

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.

PLANT LIGHTING

Plant lighting kit available, contains two bi-directional working lamps. Both activated remotely from control panel.

BLOW BARS

High: Suitable for medium to hard rock

Chrome: Applications with no steel present in feed. Good wear characteristics

Ceramic: Suitable for applications with limited steel in feed. Improved wear characteristics over standard martensitic

4 full blow bars: Available in all options

BELT WEIGHER

Belt weigher system can be fitted to the product conveyor.

RADIO REMOTE CONTROL

Complete with integrated tracking functions & plant stop button. NB - Only available in certain countries where type approval has been obtained.

Remote can also be used to:

- Feeder (stop/start/speed)
- Product conveyor (raise/lower)
- Open top apron

ELECTRIC REFUELLING PUMP

A 24 volt refuelling pump, allows fuel to be drawn from a remote source. Fuel transfer rate of 50 L/min (13 G/min).



TRAKPACTOR 320SR



↓ POWERSCREEN PULSE

RECORD, DISPLAY AND ANALYSE DATA: HIGH EFFICIENCY THROUGH PRECISE INFORMATION

Available online anywhere and at any time: comprehensive information on the GPS location, start and stop times, fuel consumption, tonnages, cone settings, wear ratings, operating hours, maintenance status, and much more.




AVAILABLE ANYWHERE AND AT ANY TIME


DASHBOARD DISPLAY


FLEET OVERVIEW


WEEKLY REPORT DIRECT TO YOUR INBOX


GPS: MACHINE TRACKING


REPORTING UTILISATION, PERFORMANCE & PART SPECIFIC



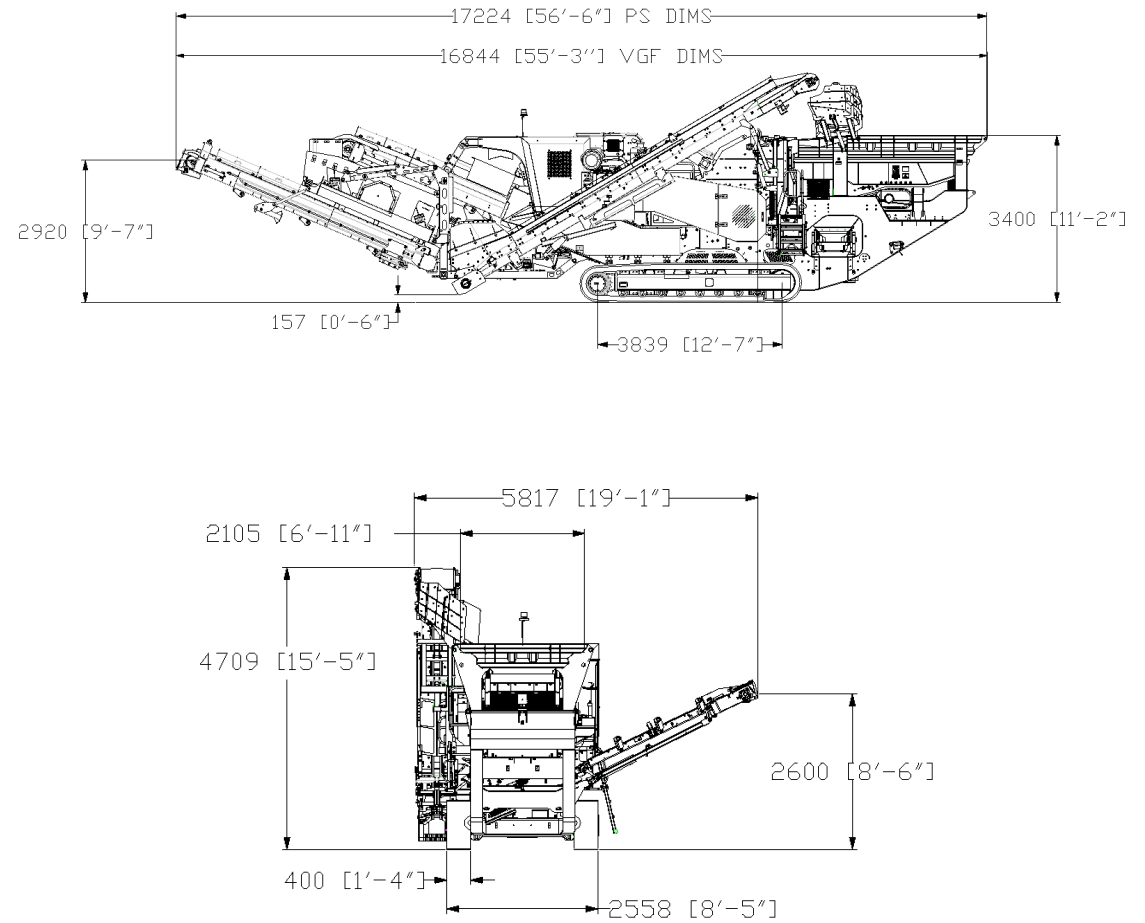


TRAKPACTOR 320SR



DIMENSIONS

Figure 1: Trakpactor 320SR
Working Position



MORE DIMENSIONS OVERLEAF

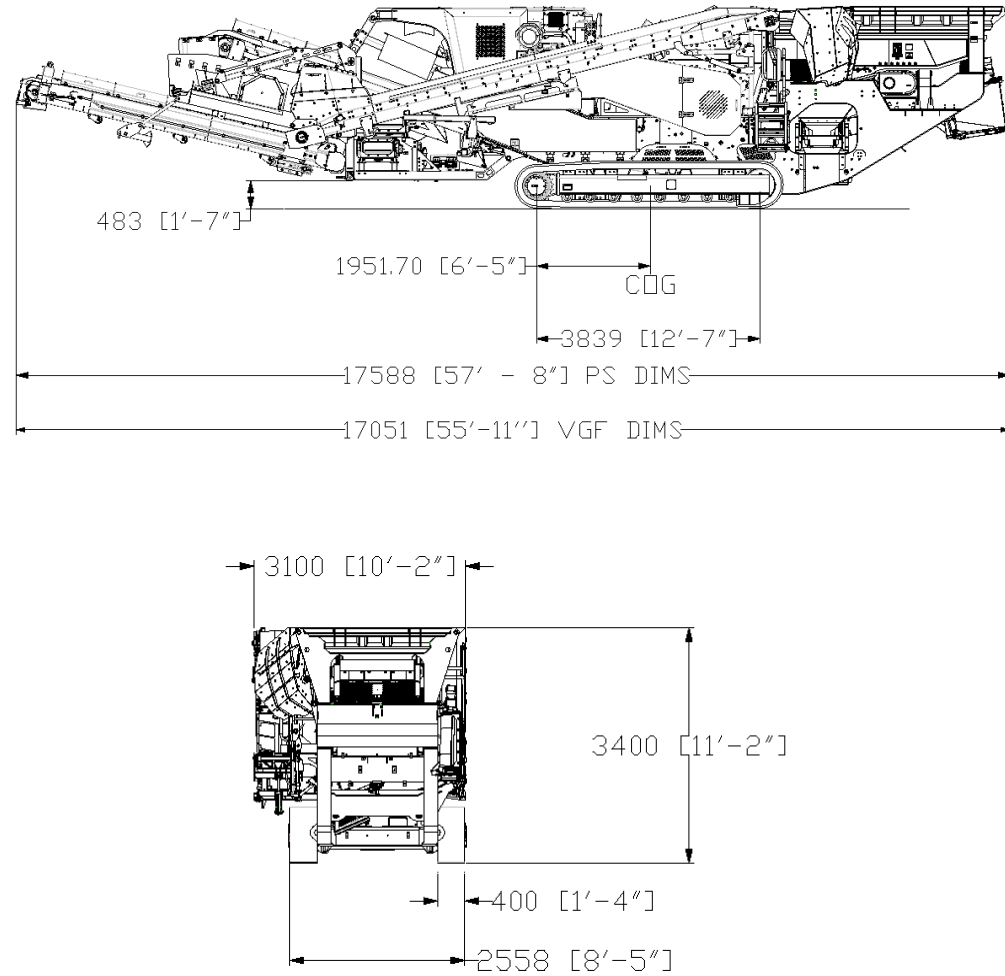


TRAKPACTOR 320SR



↓ DIMENSIONS

Figure 2: Trakpactor 320SR
Transport Position





Powerscreen equipment complies with CE requirements.

Please consult Powerscreen if you have any other specific requirements in respect of guarding, noise or vibration levels, dust emissions, or any other factors relevant to health and safety measures or environmental protection needs. On receipt of specific requests, we will endeavour to ascertain the need for additional equipment and, if appropriate, quote extra to contract prices.

All reasonable steps have been taken to ensure the accuracy of this publication, however due to a policy of continual product development we reserve the right to change specifications without notice.

It is the importers' responsibility to check that all equipment supplied complies with local legislation regulatory requirements.

Plant performance figures given in this brochure are for illustration purposes only and will vary depending upon various factors, including feed material gradings and characteristics. Information relating to capacity or performance contained within this publication is not intended to be, nor will be, legally binding.

GET IN TOUCH

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