Powerscreen® Trakpactor 320SR

Horizontal Impactor

Specification - Rev 6. 01/01/2017



POWERSCREEN®
A TEREX BRAND

Powerscreen® Trakpactor 320SR

SPECIFICATION - Rev 6. 01-01-2017

Specification		Trakpactor 320SR
Total weight VGF		46,240kg (101,941lbs)*
Total weight PS		48,600kg (107,144lbs)*
Transport	Length	17.58m (57'8")*
	Width	3.1m (10' 2")*
	Height	3.4m (11' 2") *
Working	Length	17.22m (56' 6") *
	Width	5.82m (19' 1") with side standard conveyor deployed
	Height	4.7m (15' 5")
		* = c/w Tier 4 Engine with Standard Side Conveyor & Twin Pole Magnet
Crusher type:		Twin apron 4 bar impact crusher, feed opening 1130 x 800mm (44.5" x 31.4")
Powerunit:		Caterpillar C9 ACERT 261 kW (350hp) or Scania DC9 083A 257 kW (350hp)
Paint colour:		Blue RAL 5021, Grey RAL 7024, Black RAL 9005

Features & Benefits

The Powerscreen® Trakpactor 320SR Horizontal Shaft Impactor is a highly compact tracked crusher designed to offer both excellent reduction & high consistency of product yield.
The Powerscreen® Trakpactor 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 up to 320 tph (353 US tph)
- 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
- Latest generation powerunits that meet EU Stage IIIB / US Tier 4i & EU Stage IIIA / US Tier 3 emissions legislation
- Hydraulically operated clutch & highly fuel efficient direct drive system
- Independent hydraulic prescreen 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

Aggregate
- Blasted rock
- River rock

Recycling
- C & D waste
- Foundry waste

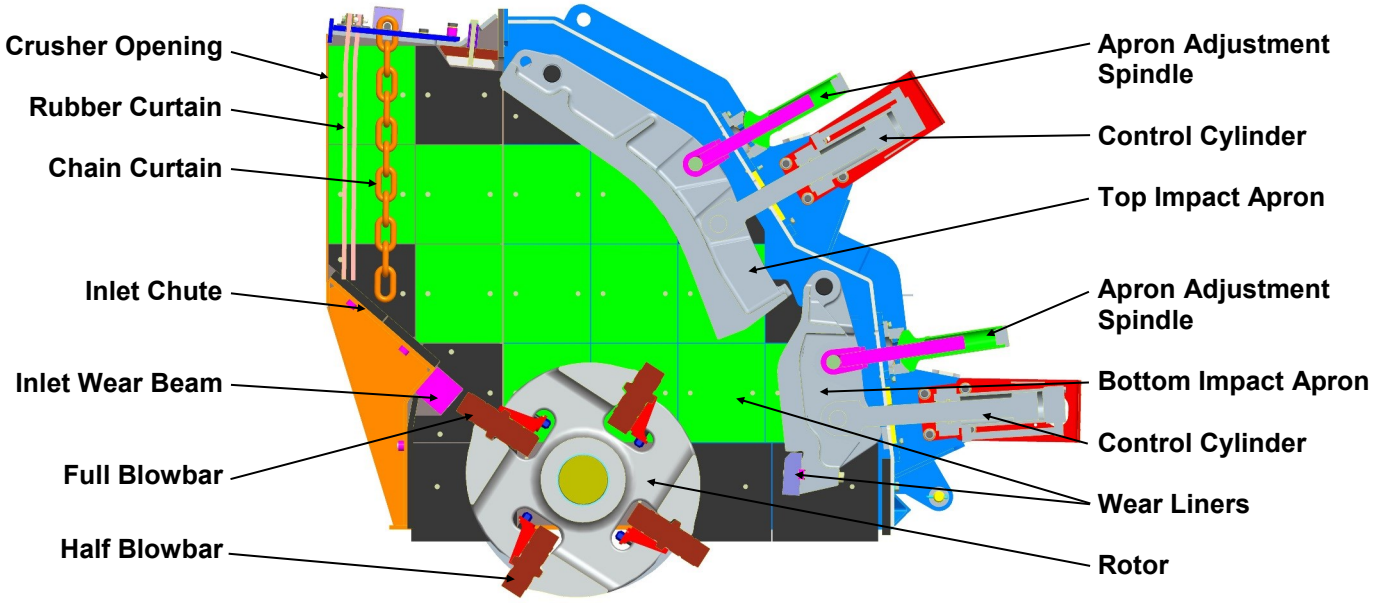
Mining
- Processed ores
- Processed minerals

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Principal components of the Powerscreen® Trakpactor 320SR Impact Crusher



Principles of Operation

Material enters via crusher opening & slides down the inlet chute where it is struck by the blowbars 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 blowbars & the cycle is repeated until the material is small enough to pass between the top apron & blowbar. 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 Patent Pending GB2455203

Crusher Specification

- **Feed opening:** 1130mm x 800mm (44.5” x 32”)
- **Maximum piece size*** 450mm^3 (18in^3) / 780mm (31”) diagonally / 800x500x250mm (31x20x10”) slab
  * depending on material & blowbar spec
- **Rotor width:** 1100mm (43.3”)
- **Rotor diameter:** 1040mm (41”)
- **Number of aprons:** 2
- **Maximum Clearance:** 180mm (7”) on both aprons
- **Maximum OSS setting:** 150mm (6”) upper apron, 75mm (3”) lower apron
- **Minimum CSS setting:** 50mm (2.4”) upper apron, 20mm (0.75”) lower apron
- **Number of blowbars:** 4
- **Blowbar removal:** Vertically
- **Blowbar 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:** 8500kg (18,740lbs)
- **Full Blowbar weight:** 220kg (485lbs)
- **Side liners:** 20mm (0.75”) thick, abrasive resistant steel

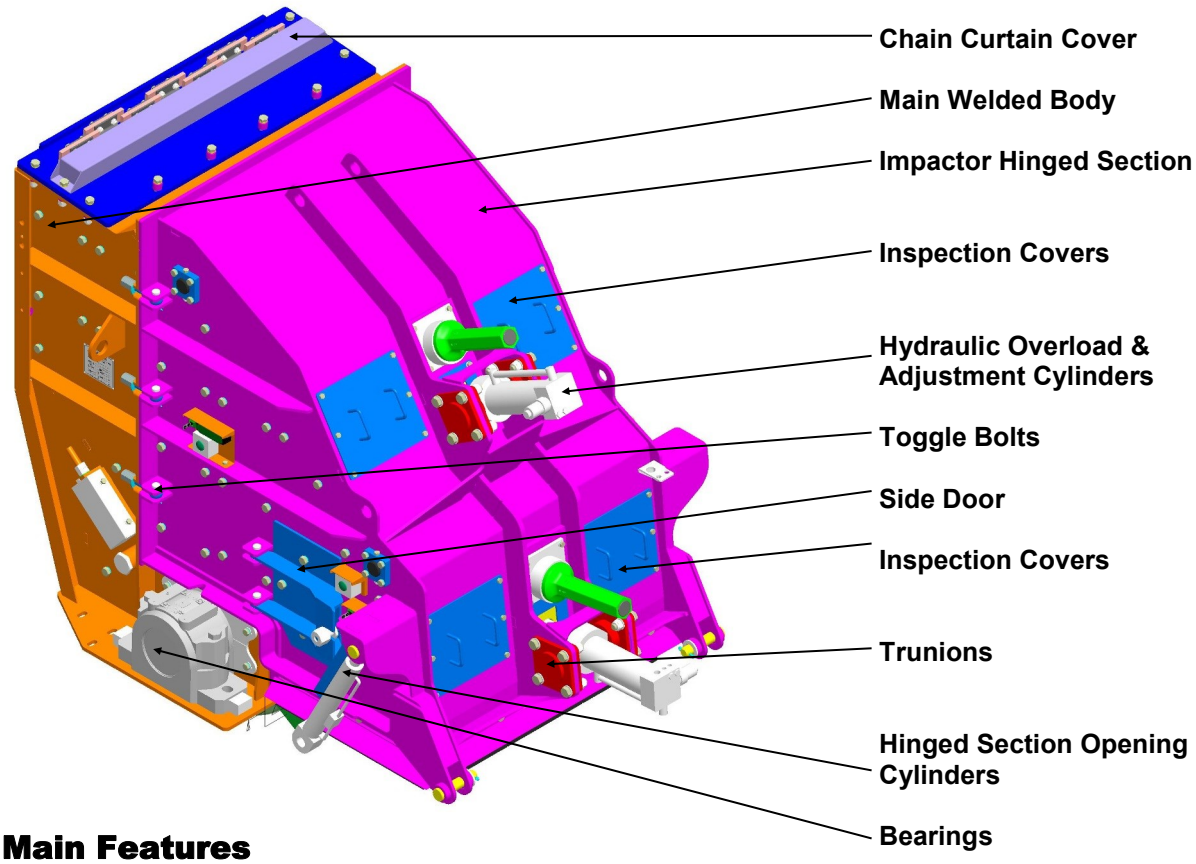
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Powerscreen® Trakpactor 320 - Impact Crusher



Main 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 blowbar 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 powerunit**
Lubrication:	**Grease lubricated rotor bearings fitted with inner & outer labyrinth seals**
Blowbars:	**Martensitic steel come as standard, High chrome & Ceramic Blowbars optional**

This plant is designed for both demolition & quarrying applications. When fitted with Martensitic or Ceramic Blowbars 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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Available Options for Powerscreen® Trakpactor 320SR - Impact Crusher

Blowbar Jib Crane

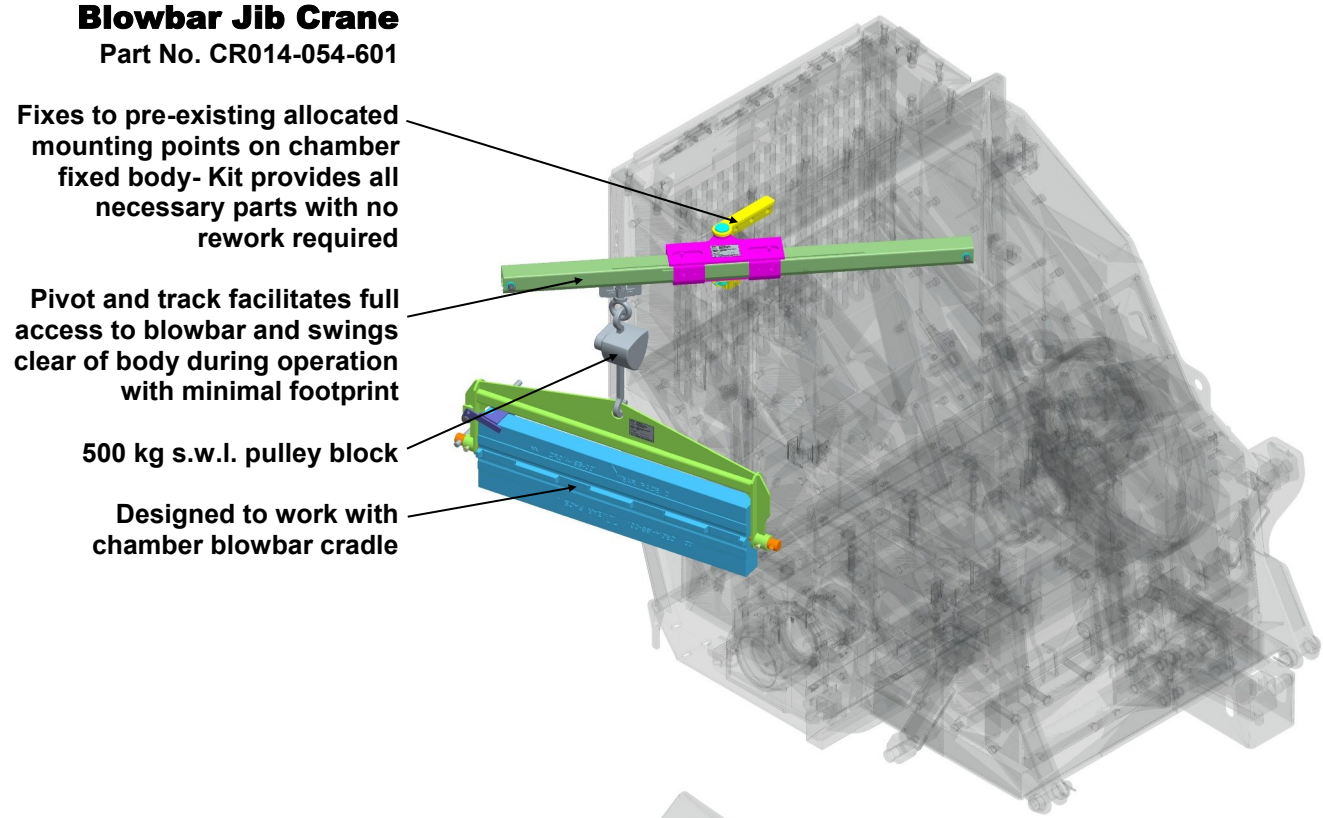
Part No. CR014-054-601

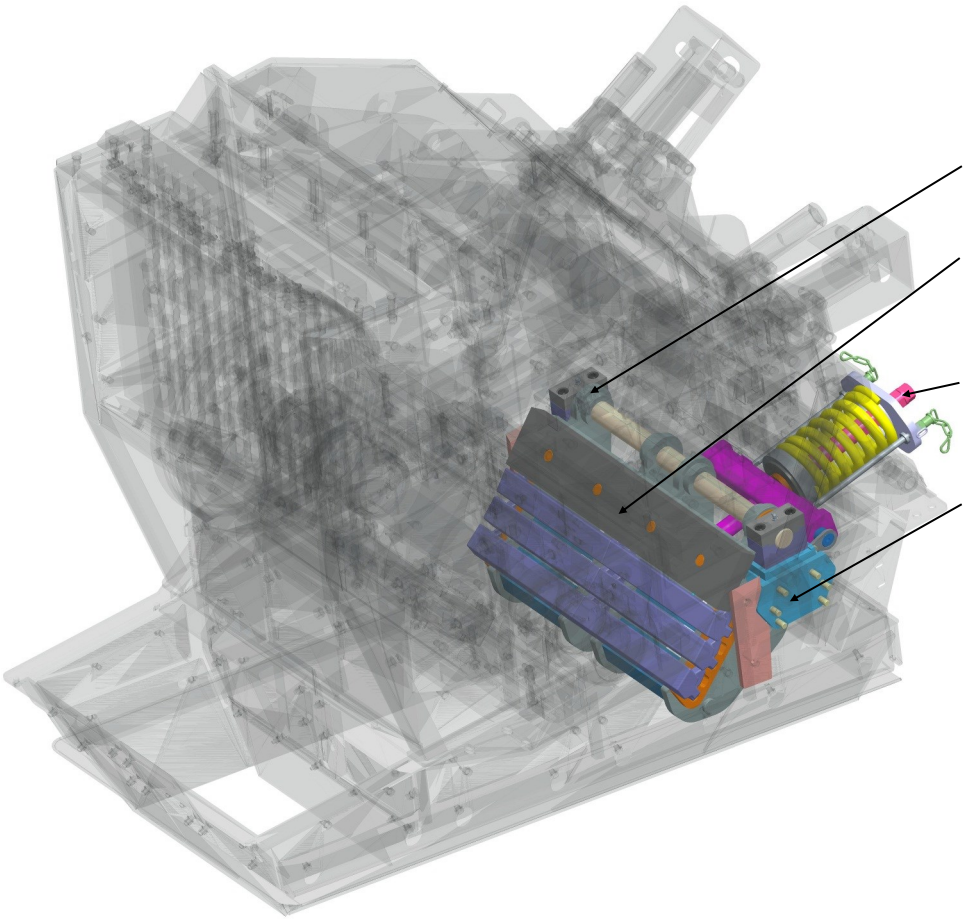
Fixes to pre-existing allocated mounting points on chamber fixed body- Kit provides all necessary parts with no rework required

Pivot and track facilitates full access to blowbar and swings clear of body during operation with minimal footprint

500 kg s.w.l. pulley block

Designed to work with chamber blowbar cradle





Grinding Path

Part No. CR014-193-601

Lubricated split pivot blocks for ease of maintenance

Self retained manganese steel grinding rails with AR steel top plate

Lubricated adjusting spindle with provision to fit socket for ease of adjustment

Kit provides all necessary parts to retrofit to existing feedboot with no rework required

Powerscreen® Trakpactor 320SR Options

Hopper

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

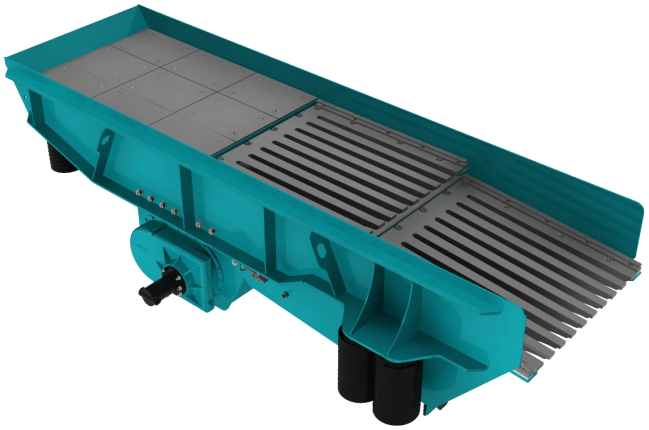
Hopper length:	**4.04 m (13’ 3”)**
Hopper width:	**2.1 m (6’11”)**
Hopper capacity:	**3.6m^3 (4.7 cu. yd.) level**
Hopper body:	**8mm (0.31”) thick abrasion resistant steel plate**



Grizzly Feeder

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

Type:	**Fully sprung vibrating pan**
Length:	**3.87m (12’ 8”)**
Width:	**1.08m (3’5”)**
Pan:	**10mm (0.4”) thick abrasion re sistant base plate**
Drive unit:	**Twin heavy duty cast eccentric shafts, running in spherical roller bearings, gear coupled at drive end**
Drive:	**Flange mounted hydraulic motor**
Grizzly:	**Two stepped bolt in cartridge sections with 950mm (37.4”) 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**





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Sizing 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: Bottom deck:	45mm aperture fitted as standard Optional mesh
Lubrication:	Grease nipples (4 in total)
Access:	Screen & Fines conveyor can be lowered for maintenance



Top deck - Transfer Conveyor

Belt type:	Plain Belt, EP500/3 with 5mm top & 1.5mm bottom rubber covers & vulcanised joint
Belt Width:	500mm (20")
Drive:	Direct drive hydraulic motor
Lubrication:	Grease nipples on bearings



Oversize - Recirculation 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
Drive:	Direct drive hydraulic motor
Lubrication:	Grease nipples on tail drum shaft bearing, remote grease nipples





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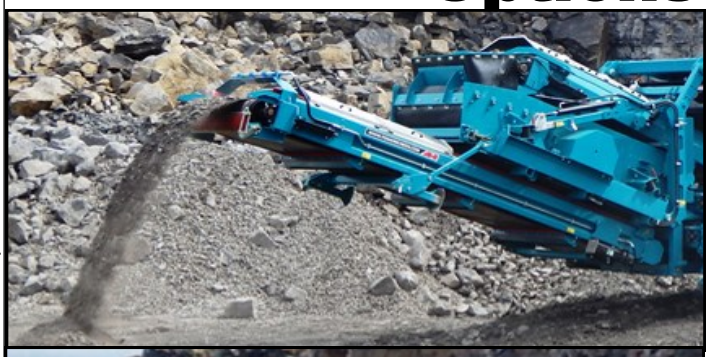
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Powerscreen® Trakpactor 320SR Options

Product Conveyor

Conveyor type: Plain troughed belt

Width: 1000mm (39”)



Fines Conveyor (Post-Screen)

Conveyor type: Plain troughed belt

Belt type: EP500/3 with 5mm top & 1.5mm bottom covers, vulcanised joint

Width: 1400mm (55”)

Discharge height: 2.92m (9’ 7”)

Stockpile volume: 37m^3 (48 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

Width: 500mm (20”)
Drive: Direct drive hydraulic motor

Lubrication: Grease nipples on head & tail shaft bearings



Platforms

Platforms are provided for maintenance on one side of the feeder & Impactor. These are fitted with double row handrails & access ladders

Platforms are also provided to gain access to the rear of the crusher & the powerunit
Galvanised walkways as standard

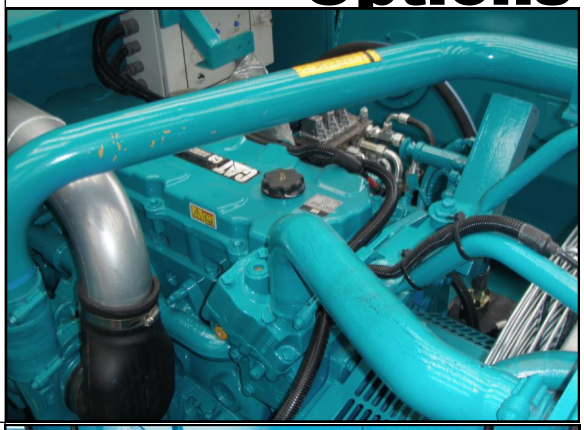


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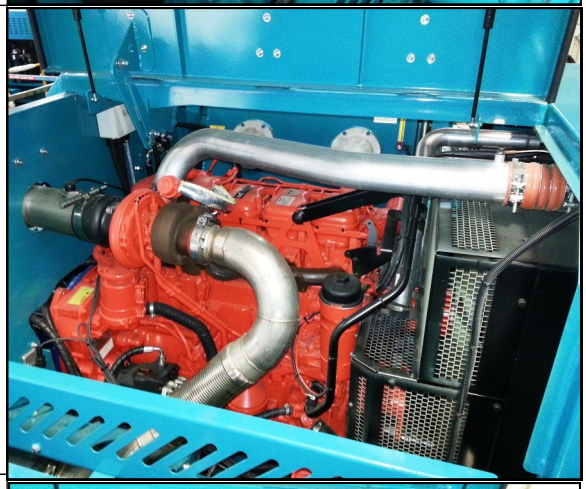
Powerscreen® Trakpactor 320SR Options

Power unit

EU Stage IIIA / US Tier 3:	**Caterpillar C9 ACERT**, 6 cylinder, direct injection 261 kW (350hp) at 2000rpm *
Operating Conditions:	Ambient temp. +30°C & –5°C (86ºF & 23ºF) altitudes up to 1000m (3281ft) above sea level. #
Operating rpm range:	1700 - 2100rpm
Typical fuel consumption:	38 L/hr (10 G/hr) Up to 6.5 tonnes tons of crushed product per litre of fuel consumed (25 tons/G)
Plant drive:	High quality pumps driven via belts from engine
Fuel tank capacity:	500L (132 US G) - Sufficient to run a 12 hour shift



Tier 4F:	Scania DC9 385A 257kW (345hp)
Operating Conditions:	Ambient temp.+30°C & –5°C (86ºF & 23ºF) at altitudes up to 1000m (3281ft) above sea level. #
Operating rpm range:	1700 - 2100rpm
Typical fuel consumption:	N/A
Emission control technique:	Selective Catalytic Reduction (SCR)
Reductant Tank Size:	60L (16.8 US G)
Plant drive:	High quality pumps driven via engine PTO's
Fuel tank capacity:	500 L (132 US G) - Sufficient to run a 12 hour shift



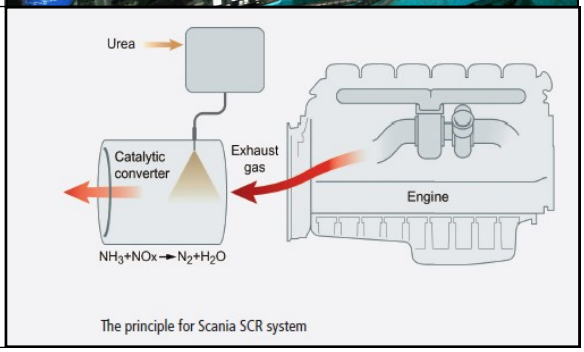
Hydraulic tank capacity:	550 L (145 US G)
Clutch type:	HPTO 12 Wet clutch, electro hydraulic operation
Crusher drive:	Direct drive via wedge belts, Clutch pulley diameter 280mm (11") Crusher pulley diameter 800mm (31.5") Crushing performance can be tuned, by changing engine speed between 1700 - 2100rpm on the PLC without significant loss of engine performance
Crusher drive tensioning:	Manually adjustable screw tensioners located under Powerunit

For applications outside this range please consult with Powerscreen as the plant performance / reliability may be affected.



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.



The principle for Scania SCR system

Powerscreen® Trakpactor 320SR Options

Crawler Tracks

Type:	Heavy duty, 2 speed, bolt on
Track centres:	320SR : 3800mm(12’ 6”)
Shoe width :	400mm (15.7”)
Gradient:	30˚ maximum
High speed :	1.0kph (0.62 mph)
Low speed :	0.3kph (0.2 mph)
Drive :	Hydraulic
Tensioning:	Hydraulic adjuster, grease Tensioned



Guarding

Wire mesh or sheet metal guards are provided on all drives, flywheels, pulleys & couplings

The guards provided are designed & manufactured to CE & ANSI standards





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



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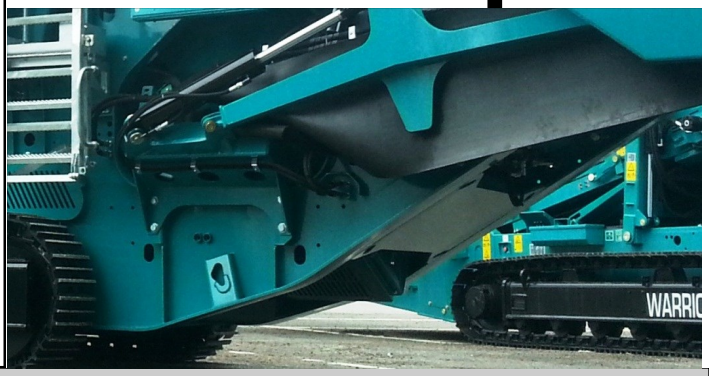
Powerscreen® Trakpactor 320SR Options

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 side 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



Powerscreen® Trakpactor 320SR Options

Extended Hopper

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

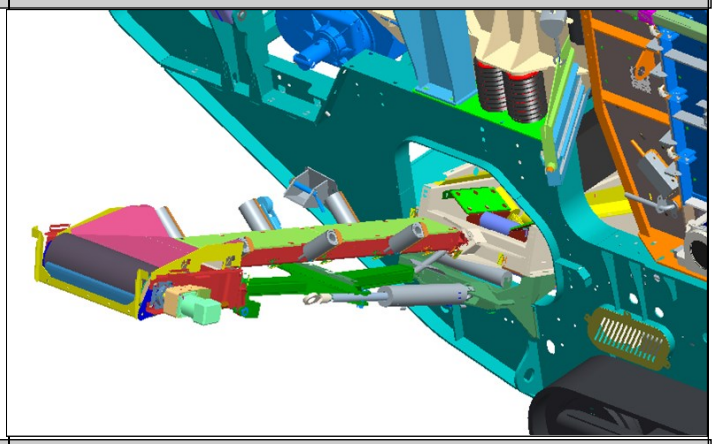
Hopper width:	4.0m (13' 1")
Hopper capacity:	6.25m^3(8.2 cu. yd.)
Hopper body:	8mm (0.31") thick abrasion resistant steel plate
Weight:	1100kg (2425 lbs)



Side Conveyor

Belt: EP250/2 with 3mm top & 1.5 mm bottom heavy duty rubber covers, vulcanised joint
Type: Steel troughed roller, hydraulic folding

Width:	650mm (26")
Discharge:	2.6m (8' 6")
Stockpile volume:	26m^3 (85 cu. yd.)
Drive:	Direct drive hydraulic motor
Position:	Discharge on RHS of plant std LHS variant available
Weight:	1030kg (2270 lbs)



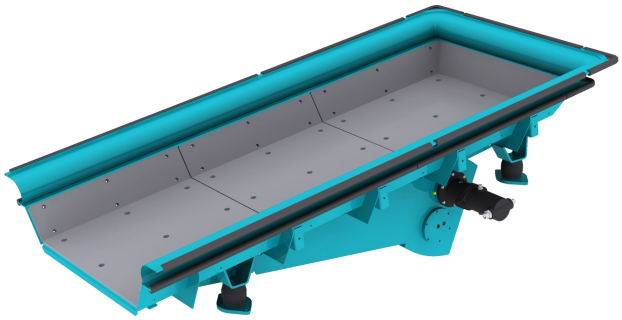
Feeder Underscreen Mesh

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



Vibrating Under-Pan Feeder

Type: with	Steel bodied vibrating feeder fitted abrasion resistant liners, mounted under the crusher & designed to prevent any damage to the product conveyor belt.
Width:	990mm (39")
Length:	2.44m (8')
Drive:	Hydraulic, out of balance exciter unit



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Pan Feeder & Pre Screen

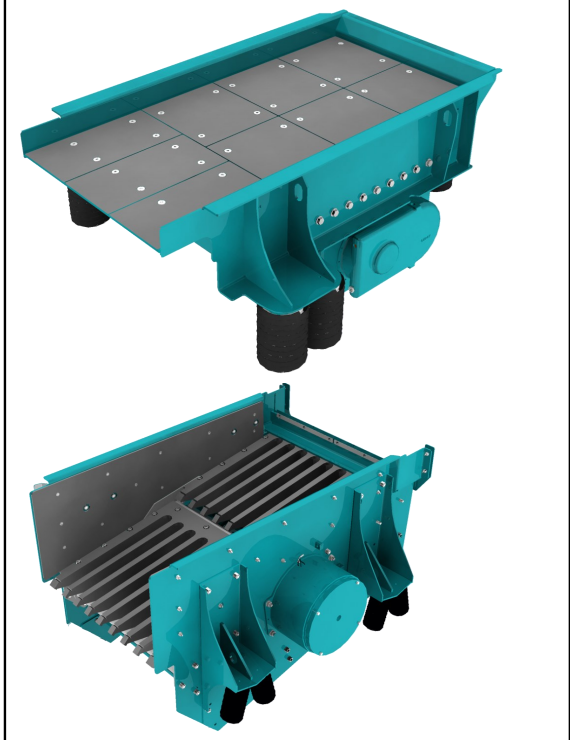
Vibrating Pan Feeder

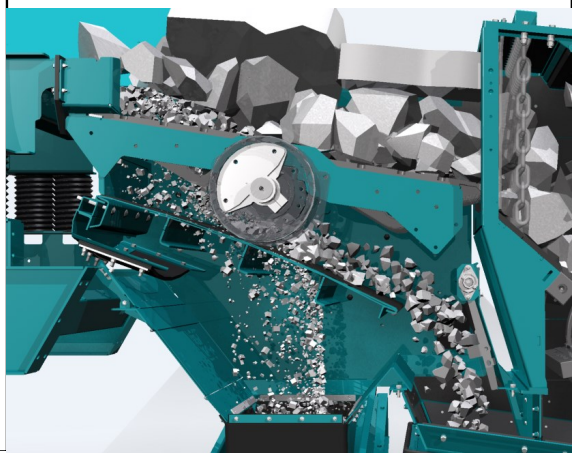
Pan type:	**Sprung vibrating pan**
Vibrating unit:	**Twin heavy duty cast eccentric shafts running in spherical roller bearings, gear coupled at drive end, flange mounted hydraulic motor**
Dimensions:	**Length: 2.15m (7')** **Width: 1.08mm (3' 6")**
Pan:	**12mm thick replaceable abrasion resistant liners**

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**
Dimensions:	**Length: 2.0m (6' 7")** **Width: 1.06m (3' 6")**
Mesh deck:	**38mm (1.5") nominal spacing** **17º incline**
Dimensions:	**Length: 1.57m (5' 2")** **Width: 1.06m (36")**
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 sub frame**







Powerscreen® Trakpactor 320SR

Pre-screen Hopper

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

Hopper Width: 2.54m (8'4")

Hopper Capacity: 6.25m^3 (8.2 yd^3)

Hopper body: 8mm (0.31") thick abrasion resistant steel plate

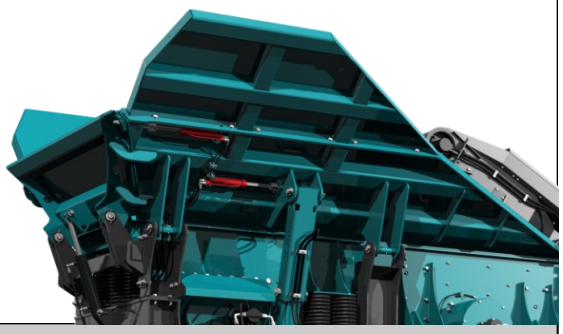


Pre-screen Hopper Extensions (Bolt-on)

Hopper Width: 4.0m (13'2")

Hopper Capacity: 9m^3 (11.7 yd^3)

Weight: 540kg (1190 lbs)



Extended Side Conveyor*

Belt: EP250/2 with 3mm top & 1.5 mm bottom heavy duty rubber covers, vulcanised joint

Type: Steel troughed roller, hydraulic folding

Width:	650mm (26")
Discharge:	3.7m (12' 2")
Stockpile volume:	75m^3 (99 cu. yd.)
Drive:	Direct drive hydraulic motor
Position:	Discharge on RHS of plant std LHS variant available

* only available with prescreen

Weight: 1250 kg (2755 lbs)





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Powerscreen® Trakpactor 320SR Options

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Midsize - Stockpiling Conveyor

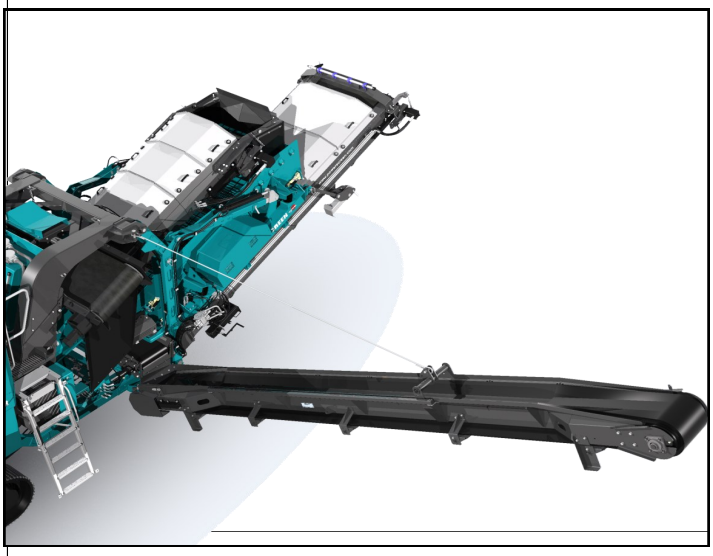
Function:	**Stockpiles material from bottom deck, via side transfer conveyor**
Conveyor type:	**Chevron type troughed belt**
Belt type:	**EP400/3, 3mm top, 1.5mm bottom covers, 25mm cleats, vulcanised**
Width:	**500mm (20")**

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 folds for transport (Optional)**



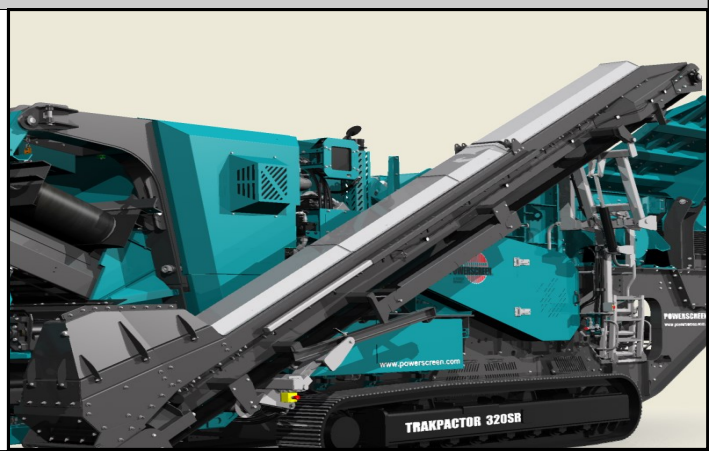
Overband Magnet

Magnet type:	**Single Pole (SP), Twin Pole (TP) & Heavy Duty Twin Pole (HTP) available.**
Belt width:	**750mm (30")**
Centres:	**1700mm (67")**
Drive/Control:	**Direct drive hydraulic motor / Pre-set variable speed**
Weight:	**SP 975kg / TP 1470kg / HTP 2300kg**



Re-circulating Conveyor Dust Covers

Optional Dust suppression covers available to cover full length of re-circulationg conveyor.



Powerscreen® Trakpactor 320SR Options

Hot/Cold Climate Oils

Cold climate oils - (Recommended for ambient temperatures between -20 to +30°C)

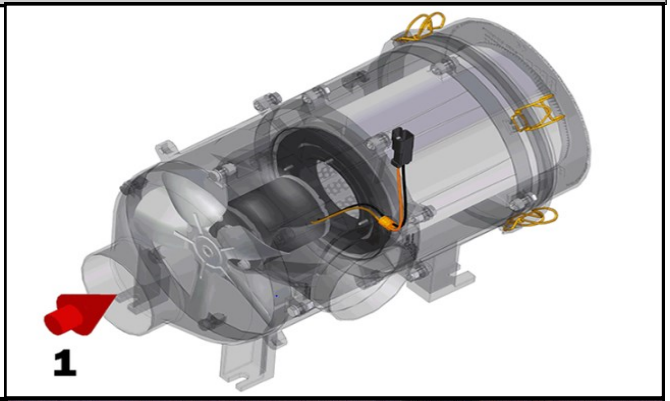
Hot climate oils - (Recommended for ambient temperatures between +15 to +50°C)



Control Panel Positive Pressurisation

An additional unit designed to reduce dust particles within the Control Panel.

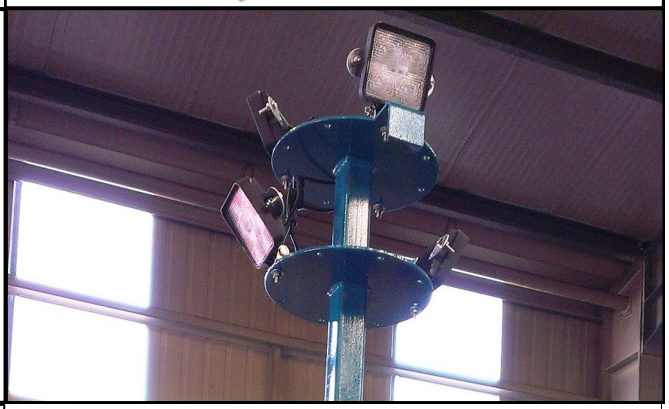
A continuous flow of clean air is passed through the cabinet whilst the unit simultaneously filters out any particulate laden air.



Plant Lighting

Plant lighting kit available, contains four bi-directional working lamps.

Both activated remotely from control panel



Blowbars

Two full size Martensitic & two half size Manganese blowbars supplied as standard.

Two further options are available:

High Chrome:	Suitable for medium to hard rock 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



Powerscreen® Trakpactor 320SR

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 for:

- 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 is 50 L/min (13 G/min)



Powerscreen Pulse

Powerscreen Pulse is a system which allows the machine to relay performance and production data via phone networks, or by satellite when there's no cellular signal, to any device with a web browser, such as a PC, tablet or Smartphone.

POWERSCREEN® PULSE

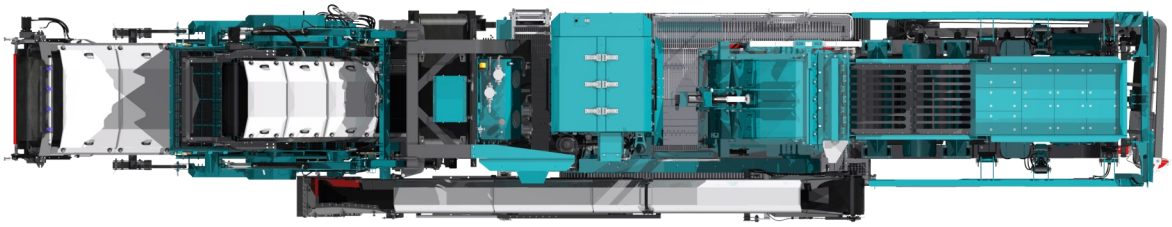
Powerscreen® Trakpactor 320SR Options

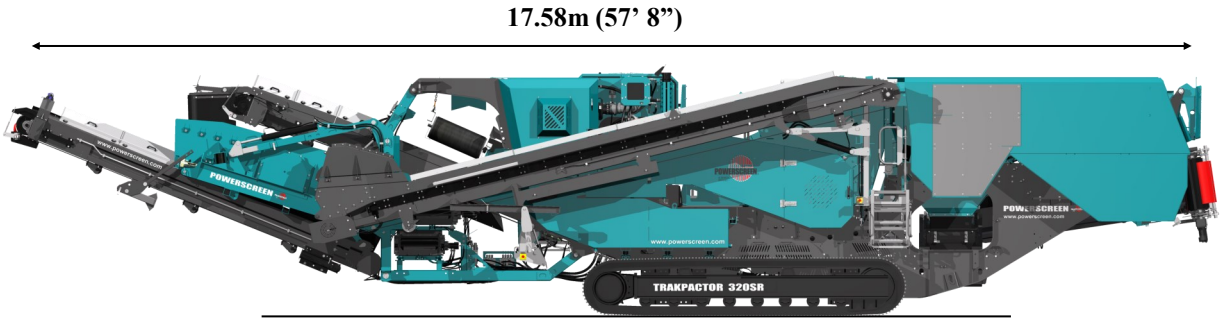
Specification		Trakpactor 320SR
Total weight VGF		46,240kg (101,941lbs)*
Total weight PS		48,600kg (107,144lbs)*
Transport	Length	17.58m (57’ 8”) *
	Width	3.1m (10’ 2”)
	Height	3.4m (11’ 2”)

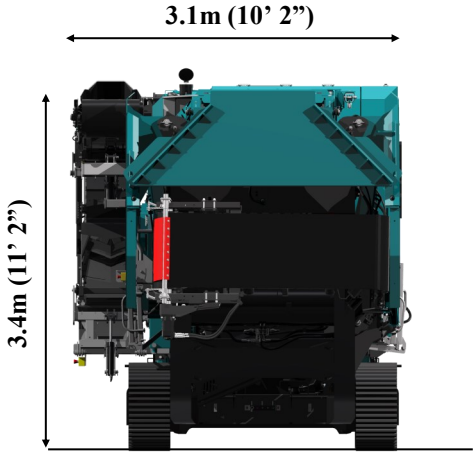
SPECIFICATION - Rev 6. 01-01-2017

* = c/w Tier 4 Engine with Standard Side Conveyor & Twin Pole Magnet

Transport Dimensions







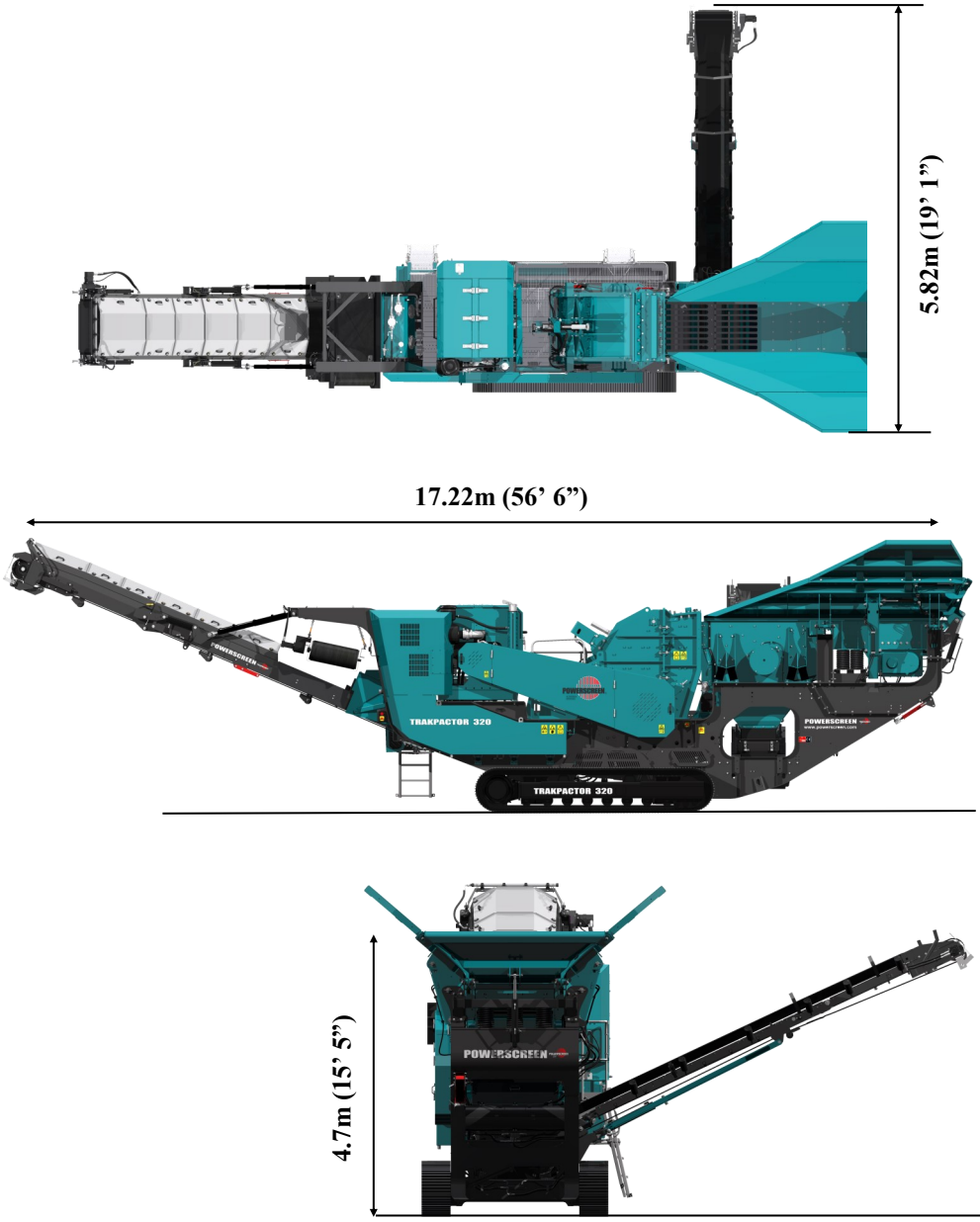
All specifications subject to change without prior notice

Powerscreen® Trakpactor 320SR

Specification		Trakpactor 320SR
Total weight VGF		46,240kg (101,941lbs)*
Total weight PS		48,600kg (107,144lbs)*
Working	Length	17.22m (56'6")*
	Width	5.82m (19' 1")* with side standard conveyor deployed
	Height	4.7m (15' 5") *

* = c/w Tier 4 Engine with Standard Side Conveyor & Twin Pole Magnet

Working Dimensions



All specifications subject to change without prior notice

POWERSCREEN® A TEREX BRAND

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.

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