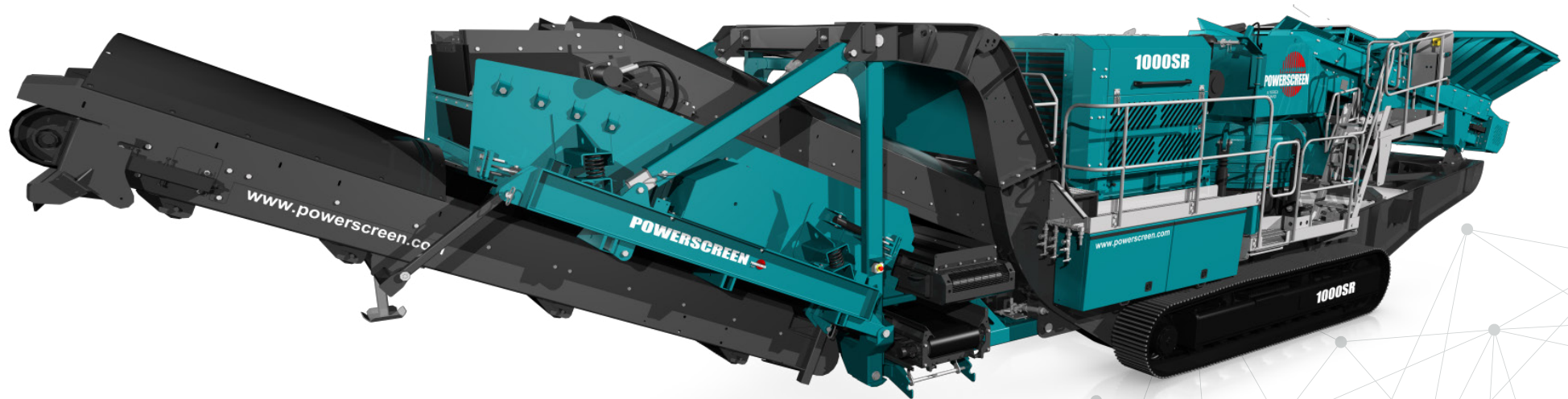


# POWERSCREEN® 1000SR

CONE CRUSHER



TECHNICAL SPECIFICATION - REV 12 01/02/2023





## POWERSCREEN 1000SR



# OVERVIEW

### SPECIFICATION

<b>Total Weight</b>	Tier 3: 39,640kg (87,391lbs) (No Options)	
	Tier 4F: 40,800kg (89,949lbs) (No Options)	
<b>Transport</b>	<b>Length</b>	16.9m (55' 5")
	<b>Height</b>	3.45m (11' 4")
	<b>Width</b>	3.1m (10' 2")
<b>Working</b>	<b>Length</b>	16.9m (55' 5")
	<b>Height</b>	4.85m (15' 11")
	<b>Width</b>	3.43m (11' 3")
<b>Crusher Type:</b>	1000 Automax Crusher	
<b>Power Unit</b>	Caterpillar C9.3 250kW (335hp) or Scania DC9 257kW (350hp)	
<b>Paint Colour</b>	RAL 5021, RAL 7024, RAL 9005	

### FEATURES & BENEFITS

The Powerscreen® 1000SR is a highly compact crushing & screening plant that combines the benefits of the 1000 Maxtrak & Powerscreen Chieftain 1400 on one chassis to form a highly manoeuvrable self contained, closed loop plant that can be easily setup. The 1000SR has been designed for direct feed applications without pre-screening on clean rock. At the heart of the Maxtrak is the Automax® cone crusher with hydraulic setting, tramp release & unblocking system.

The Powerscreen® 1000SR is suitable for secondary & tertiary applications, it features a recirculating conveyor & a double deck screen to provide the complete crushing & screening process on a single chassis. The Powerscreen 1000SR can produce up to three end products when oversized material doesn't require recirculation to the crusher.

- Output potential of up to 230 tph / 253 US tph - depending on feed material and crusher settings
- Combines crushing & screening capabilities on a single plant
- Suitable for recirculating oversized material
- Renowned Automax® crusher technology
- Accepts clean 'all in feed'
- High reduction ratio, excellent product shape, rock on rock attrition crushing
- Cone feed box level control to maintain choke feeding
- Hydraulic crusher setting
- Cone overload protection
- Metal detector
- Dust suppression system
- Economical to operate with a highly fuel efficient direct drive system
- Produce three product sizes using optional stockpile conveyor
- Heavy duty chassis & track frame
- Remote control via umbilical
- Radio remote control as standard
- Powerscreen Pulse telemetry as standard

### APPLICATIONS



#### Aggregate

Sand & gravel  
Blasted rock  
River rock



#### Recycling

C&D waste  
Foundry waste



#### Mining

Processed ores  
Processed minerals



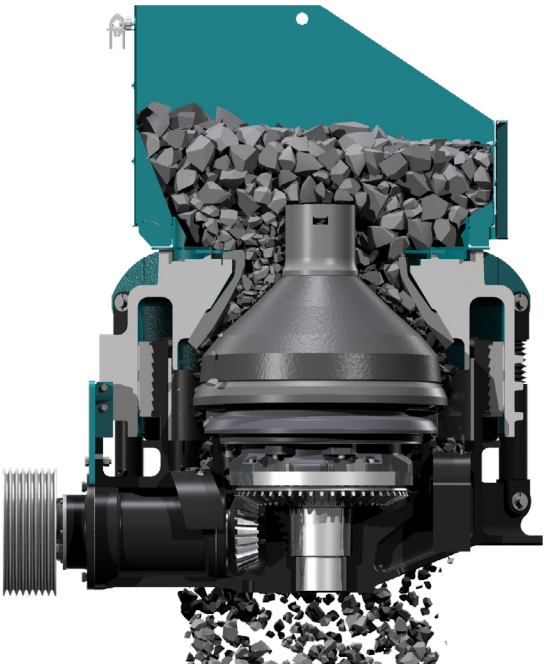
# POWERSCREEN 1000SR



# CONE CRUSHER

- Crusher type:** 1000 Automax Crusher
- Liners:** Manganese steel alloy mantle & concave
- Standard concave:** Medium Coarse (MC)
- Lubrication:** Pumped system having a chassis mounted lube tank with airblast cooler
- Adjustment:** Hydraulic setting adjustment, automatic over load release & hydraulic unblocking
- Control:** 2 Operating modes available:  
- Autoset Mode: fixed parameters  
- Maxset Mode: load sensing, parameters auto adjust & maximise performance
- Concave options:** Extra Coarse (XC)  
Coarse (C)  
Autosand (AS)
- Eccentric option:** Short throw
- Drive:** Wedge belt drive from engine via clutch

LINER PROFILE	MAXIMUM FEED SIZE	MAXIMUM RECOMMENDED CSS
Medium Coarse	160MM (6.3")	38mm (1.6")
Coarse	175mm (6.9")	38mm (1.6")
Extra Coarse	195mm (7.7")	38mm (1.6")
Autosand	63mm (2.5")	32mm (1.26")
Each of the above available with choice of long & short throw eccentrics		



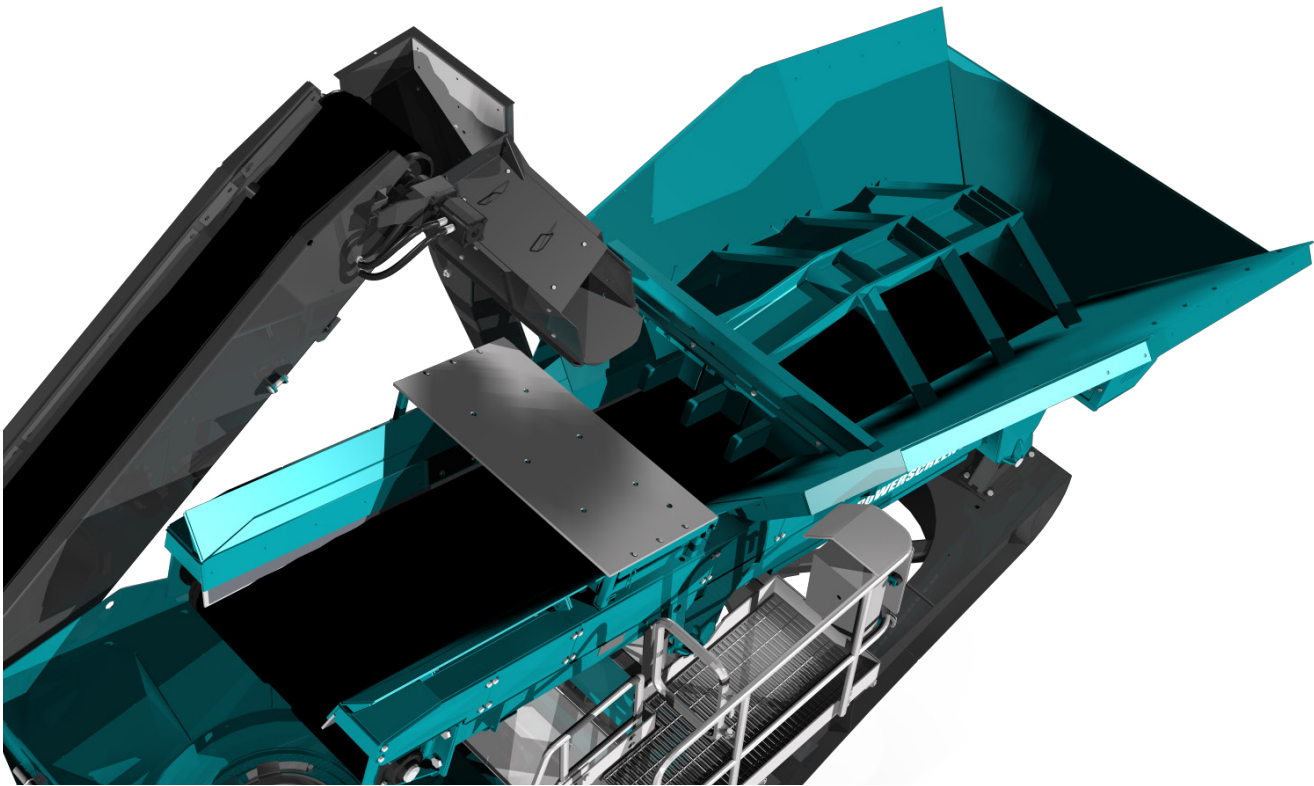


## POWERSCREEN 1000SR



# HOPPER

<b>Hopper type:</b>	Fixed feed hopper
<b>Hopper length:</b>	3.38m (11' 1")
<b>Hopper width:</b>	2.5m (8' 2")
<b>Feed in height (rear):</b>	2.8m (9' 2")
<b>Feed in height (rear with extensions):</b>	3.25m (10' 8")
<b>Hopper width (rear with extensions):</b>	3.9m (12' 10")
<b>Hopper capacity:</b>	Up to 4.4m <sup>3</sup> (5.8 cu. yd.) gross depending on method of feed
<b>Hopper body:</b>	Fabricated in 10mm thick wear resistant steel plate, with internal crash bars to minimise impact load on the feed conveyor





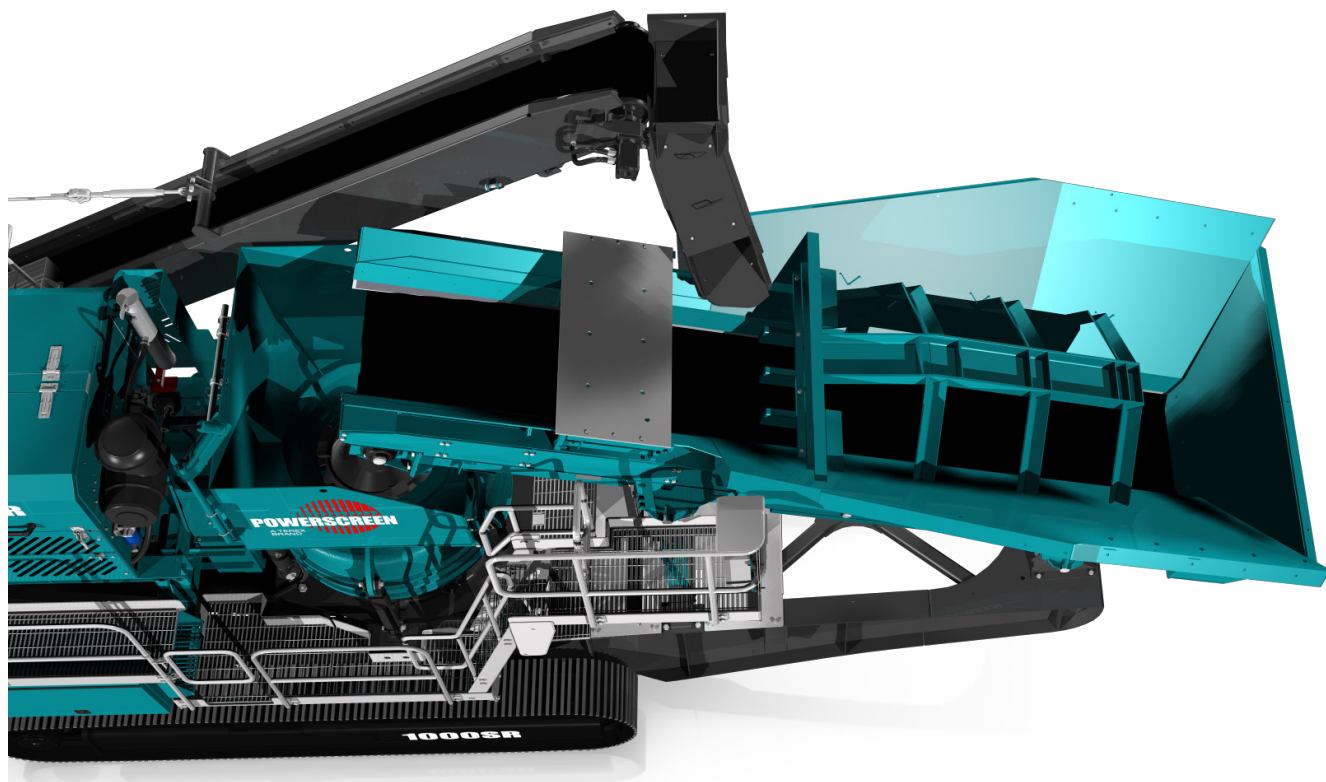
## POWERSCREEN 1000SR



# FEED CONVEYOR

<b>Conveyor type:</b>	Shallow troughed belt, variable speed
<b>Design:</b>	Raise & lower hydraulically for transport, operation & crusher maintenance
<b>Belt type:</b>	EP500/3 with 5mm top & 1.5mm bottom heavy-duty rubber covers, vulcanised joint
<b>Belt adjustment:</b>	Screw adjustment at the tail shaft
<b>Belt width:</b>	1000mm (40")
<b>Feed height:</b>	2.8m (9' 2")
<b>Drive:</b>	Hydraulic drive via flange mounted gearbox

<b>Impact rollers:</b>	Below feed hopper
<b>Metal detector:</b>	Suitable for detecting steel & manganese, complete with audible warning device & connected to stop the feed conveyor.
<b>Barge boards:</b>	Extend from the feed conveyor to the conveyor head.
<b>Lubrication:</b>	Oil lubricated head drum gearbox. Grease nipples for lubrication of shaft bearings.
<b>Level probe:</b>	Crusher feed ring fitted with level probe designed to regulate & constantly choke feed the crusher.







## POWERSCREEN 1000SR



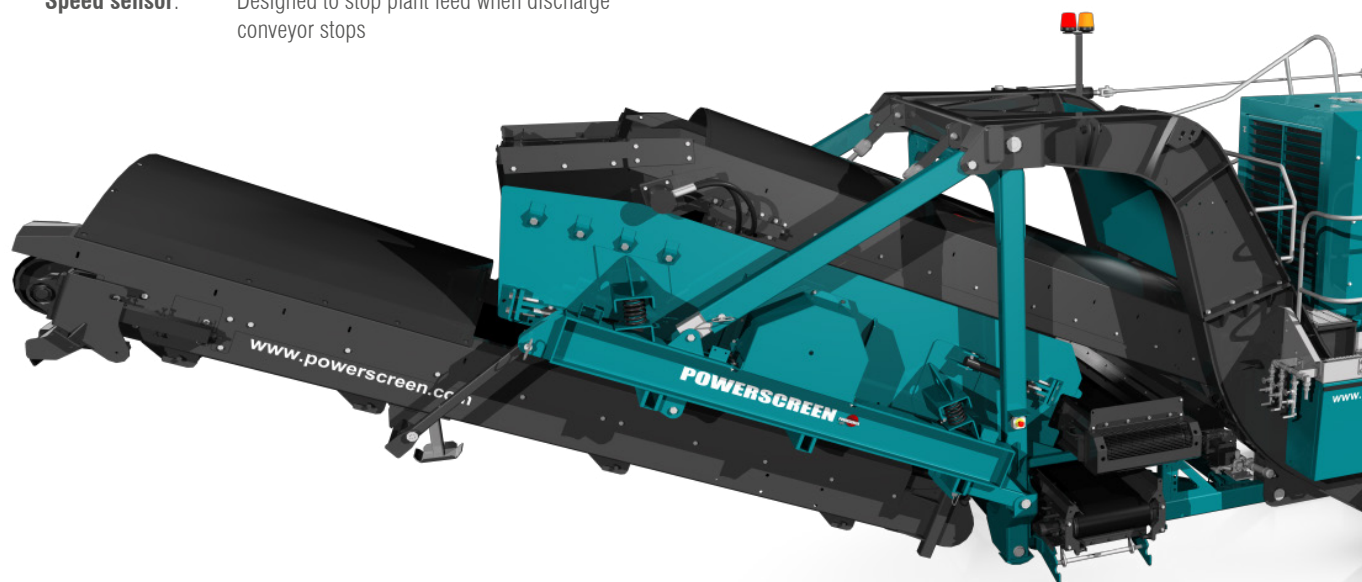
# PRODUCT CONVEYOR

<b>Conveyor type:</b>	Troughed belt. Fixed speed conveyor with hydraulic drive
<b>Belt type:</b>	EP400/3 with 4mm top & 2mm bottom heavy duty rubber covers & vulcanised joint
<b>Belt width:</b>	800mm (32")
<b>Impact rollers:</b>	Fitted below the crusher outlet
<b>Skirting:</b>	Fully skirted rubber sealing along the conveyor length
<b>Drive:</b>	Direct drive hydraulic motor
<b>Belt covers:</b>	Canvas type removable dust covers are fitted over the exposed section of the conveyor
<b>Belt adjustment:</b>	Screw adjustment at the head drum
<b>Lubrication:</b>	Grease nipples for lubrication of shaft bearings
<b>Speed sensor:</b>	Designed to stop plant feed when discharge conveyor stops

## DUST SUPPRESSION SYSTEM

Spray bars with atomiser nozzles mounted over the crusher mouth, product conveyor feed & discharge points. Piped to an inlet manifold

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





## POWERSCREEN 1000SR



# POWER UNIT & HYDRAULICS

### Tier 3 Equivalent:

#### Operating conditions:

Caterpillar C9.3, 250 kW (335hp)

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:

1750 - 1850rpm

#### Plant drive:

High quality pumps driven via engine/clutch PTO

#### Fuel tank capacity:

650 L (171 US Gal)

### Tier 4F/Stage V:

#### Operating conditions:

Scania DC9, 257kW (350hp)

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:

1750 - 1850rpm

#### Emission control technique:

Selective Catalytic Reduction (SCR)

#### Reductant tank size:

60 L (16 US Gal)

#### Plant drive:

High quality pumps driven via engine PTOs

#### Fuel tank capacity:

650 L (171 US Gal)

#### Hydraulic tank capacity:

365 L (96 US Gal)

#### Cone lube oil tank capacity:

220 L (58 US Gal)

#### Crusher drive:

Direct drive via wedge belts

#### Crusher drive tensioning:

Manual adjustable screw tensioners located under Power unit

#### Clutch type:

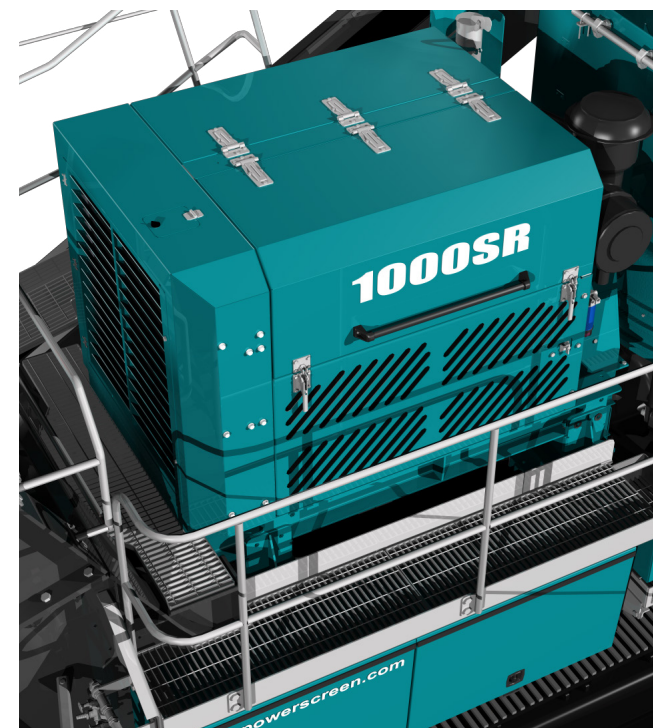
HPTO 12 dry clutch with electro hydraulic operation.

### Scania Stage V / Tier 4 Final Technology

Scania industrial engines meet the requirements of Stage V 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.





## POWERSCREEN 1000SR



### TRACKS

**Type:** Heavy duty bolt on tracks

**Sprocket centres:** 3800mm (12' 6")

**Track width:** 400mm (1')

**Gradeability:** 25° maximum

**High speed:** 1kph (0.6mph)

**Drive:** Hydraulic

**Track tensioning:** Hydraulic adjuster, grease tensioned







## POWERSCREEN 1000SR



# POST-SCREEN & CONVEYORS

### POST-SCREEN

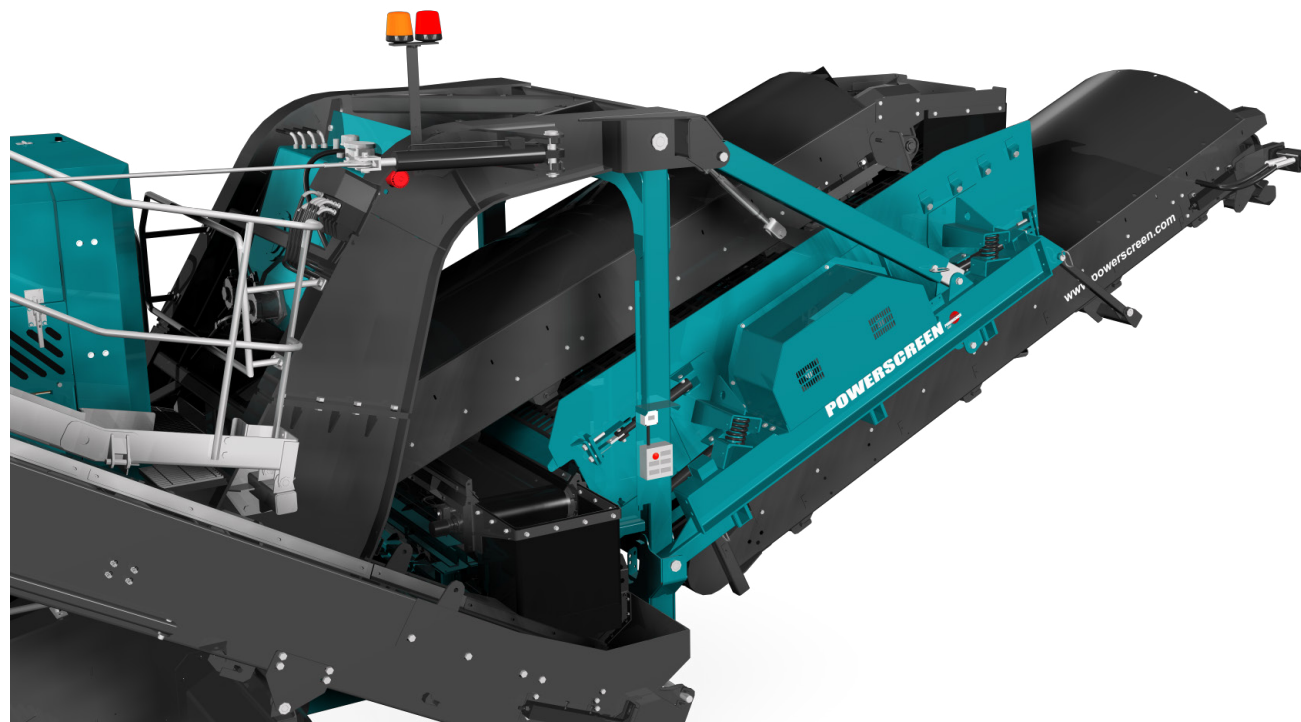
<b>Type:</b>	2 deck vibrating screen, 4 bearing
<b>Size:</b>	3350mm x 1525mm (11' x 5')
<b>Location:</b>	After product conveyor
<b>Drive:</b>	Hydraulic drive, fixed speed
<b>Top deck:</b>	45mm aperture fitted as standard
<b>Bottom deck:</b>	Optional mesh
<b>Lubrication:</b>	4 grease nipples
<b>Access:</b>	Screen & fines conveyor lowers for maintenance

### TOP DECK - TRANSFER CONVEYOR

<b>Function:</b>	Transfers material from top deck of screen to recirculating conveyor
<b>Belt type:</b>	Plain belt, EP400/3 with 4mm top & 2mm bottom rubber covers & vulcanised joint
<b>Belt width:</b>	500mm (20")
<b>Drive:</b>	Direct drive hydraulic motor

### OVERSIZE - RECIRCULATING CONVEYOR

<b>Function:</b>	Returns oversize material from post-screen to crusher for re-crushing. Can also be repositioned for oversize material stockpiling
<b>Belt type:</b>	Chevron belt, EP 315/3 with 3mm top & 1.5mm bottom rubber covers, 15mm cleat, vulcanised joint.
<b>Belt width:</b>	500mm (20")
<b>Drive:</b>	Direct drive hydraulic motor
<b>Lubrication:</b>	Remote grease nipples
<b>Transport:</b>	Needs to be lowered for tracking on uneven ground, changing gradients & for transportation.





## POWERSCREEN 1000SR



# CONVEYORS

### FINES CONVEYOR

**Function:** Stockpiles fines from post-screen

**Belt type:** Plain EP400/3 with 4mm top 2mm bottom covers, vulcanised joint

**Belt width:** 1400mm (56")

**Discharge height:** 2.88m (9' 5") @24°

**Stockpile volume:** 44m<sup>3</sup> (57 cu. yd.) @24°

**Drive:** Direct drive hydraulic motor

**Lubrication:** Remote Grease nipples

### BOTTOM DECK - TRANSFER CONVEYOR

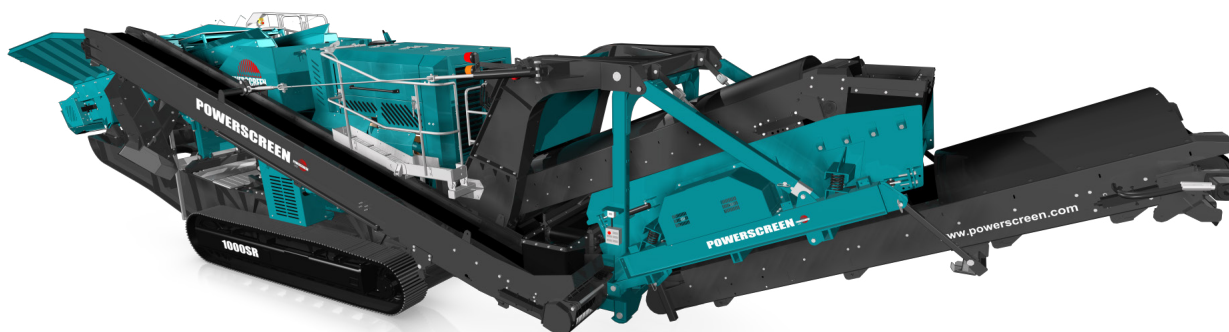
**Function:** Transfers material from top deck of screen to recirculating conveyor

**Belt type:** Plain Belt, EP400/3 with 4mm top & 2mm bottom rubber covers & vulcanised joint

**Belt width:** 500mm (20")

**Drive:** Direct drive hydraulic motor

**Lubrication:** Grease nipples on bearing housings





## POWERSCREEN 1000SR



# PLANT CONTROLS & OTHER

## CHASSIS

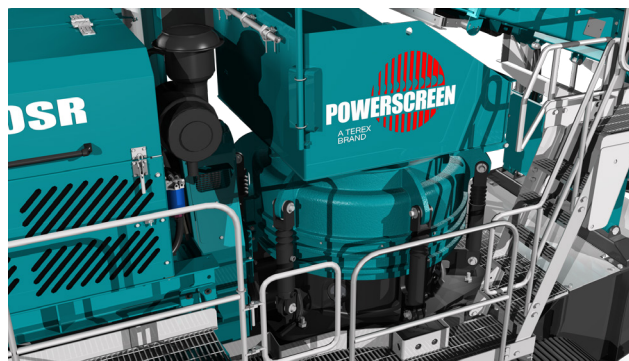
Heavy duty I-Section welded construction, provides maximum strength & accessibility

## CHUTES

- Feed box:** Fabricated in 6mm mild steel plate. Hinge down back plate to lower feed conveyor head section for transportation.
- Product conveyor:** Fabricated in 10mm mild steel plate with replaceable 10mm wear resistant liners at impact points.
- Recirc chute:** Fabricated in 5mm thick mild steel with replaceable 6mm wear resistant liners. Hydraulically raises & lowers for transport

## GUARDS

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

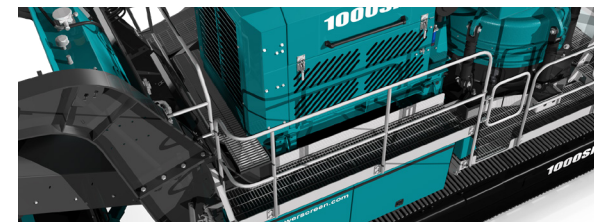


## RADIO REMOTE CONTROL

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:

- Start/Stop feeder



## PLATFORMS

Platforms are provided for inspection & maintenance, allowing access to each side of the engine, one side of the crusher & feed conveyor.

All platforms are galvanised as standard & are made from steel flooring with steel toe boards, double row handrails & access ladders.

## UMBILICAL CONTROL

An umbilical control unit is also supplied with the plant. This is used to control the tracking function & is also fitted with a stop button for the plant.

## PLANT CONTROLS

A control panel is fitted onto the plant to operate the following items:

- Feed conveyor (raise/lower)
- Screen (raise/lower)
- Recirculating conveyor (raise/lower)
- Recirculating chute (raise/lower)



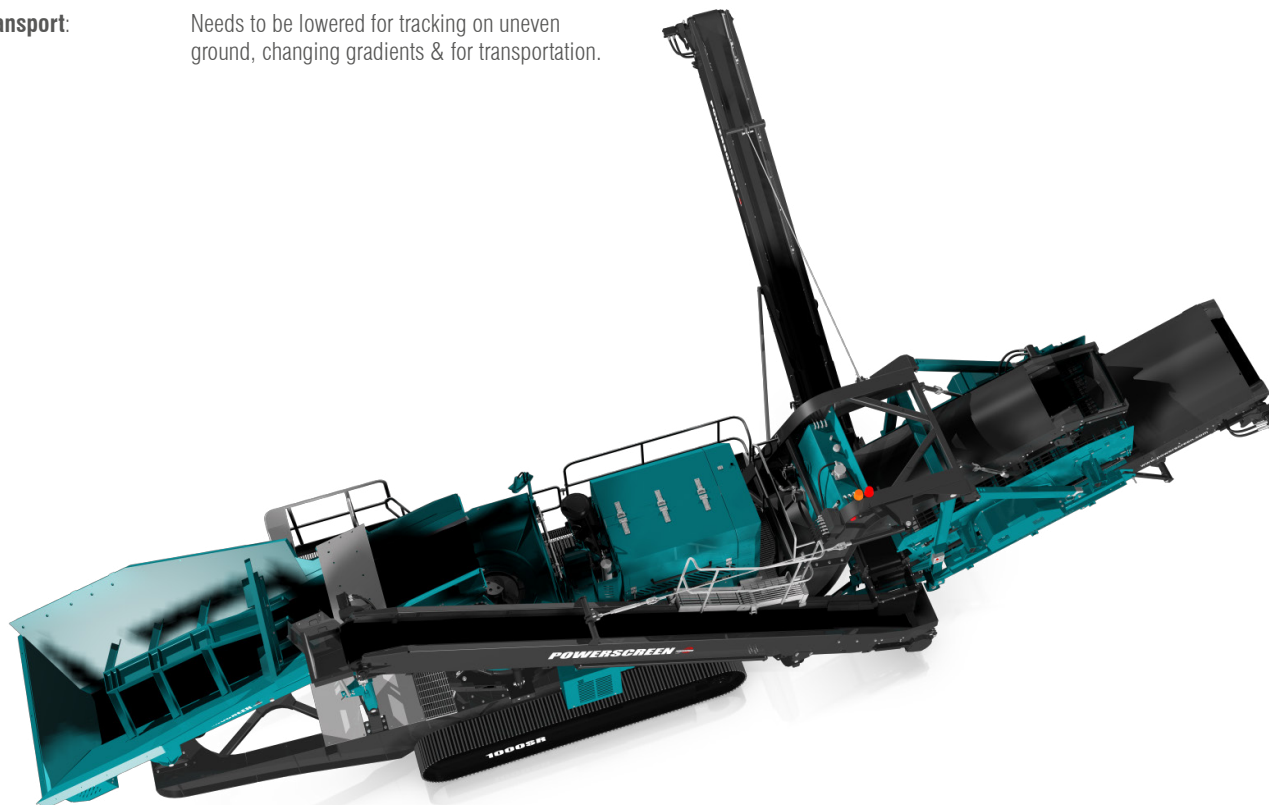
## POWERSCREEN 1000SR



## OPTIONS

### MIDSIZE - STOCKPILING CONVEYOR

<b>Conveyor:</b>	Stockpiles material from bottom deck side transfer conveyor
<b>Belt type:</b>	Chevron EP315/2 with 3mm top & 1mm bottom covers, 15mm cleat, vulcanised joint
<b>Belt width:</b>	500mm (20")
<b>Discharge height:</b>	3.95m (13')
<b>Stockpile volume:</b>	113m <sup>3</sup> (147 cu. yd.) @24°
<b>Drive:</b>	Direct drive hydraulic motor
<b>Transport:</b>	Needs to be lowered for tracking on uneven ground, changing gradients & for transportation.





## POWERSCREEN 1000SR



## ↓ OPTIONS 2

### 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.

### 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)

### HYDRAULIC WATER PUMP

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

### OPTIONAL EXTRAS

- Automax Extra Coarse (XC) concave
- Automax Coarse (C) concave
- Autosand (AS) concave
- Short throw eccentric
- Feed hopper extension plates (remove for transport)
- Additional stockpiling conveyor
- Bottom deck mesh
- Hydraulic water pump
- Hot/cold climate oils
- Control panel positive pressurisation







## POWERSCREEN 1000SR

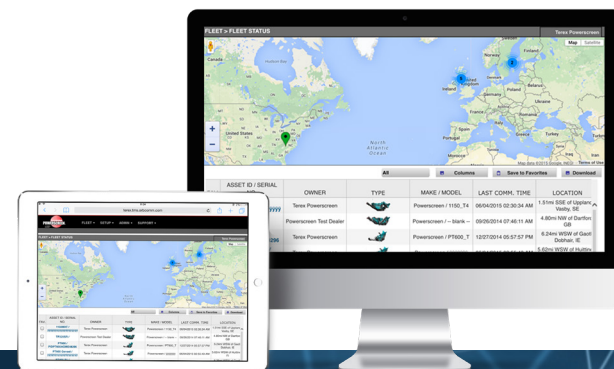


# POWERSCREEN PULSE

## 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**

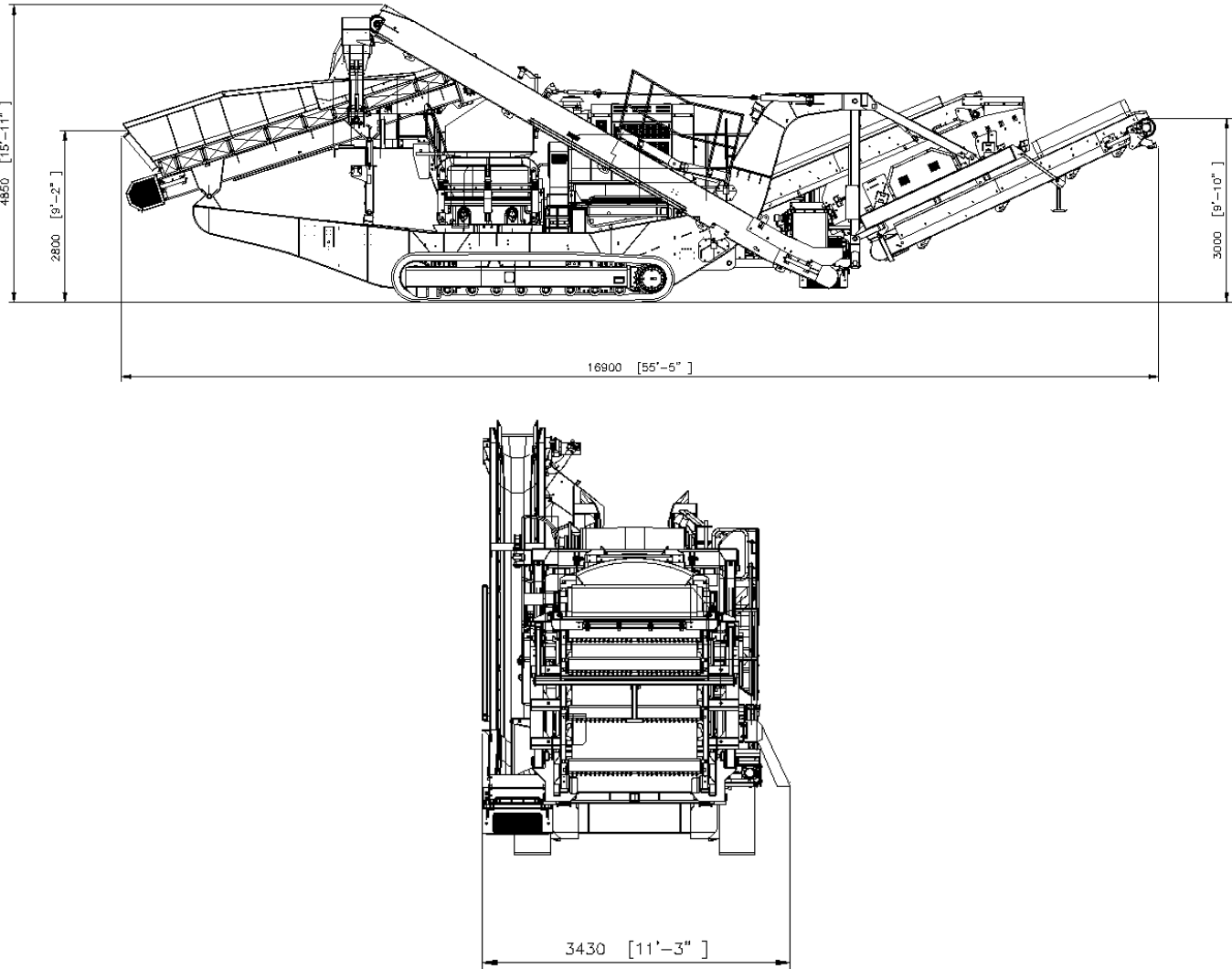


# POWERSCREEN 1000SR



## DIMENSIONS

Figure 1: 1000SR Maxtrak  
Working Position



MORE DIMENSIONS OVERLEAF

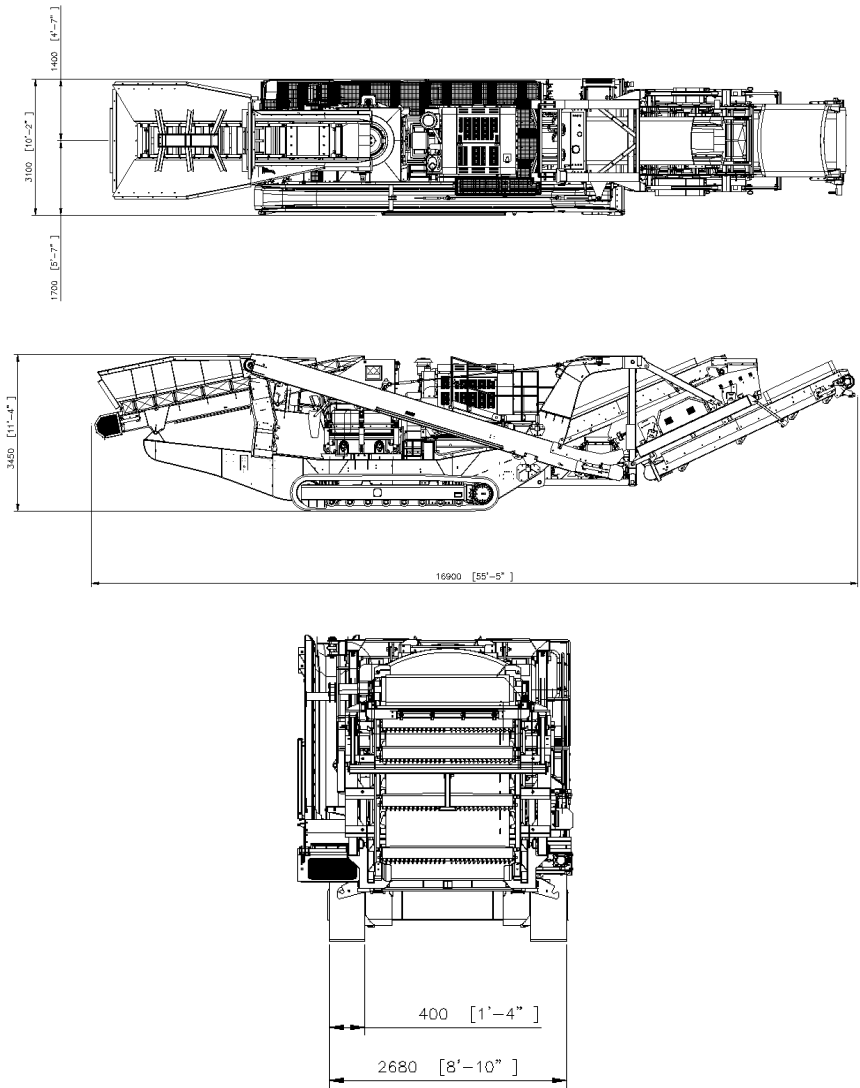


# POWERSCREEN 1000SR



## DIMENSIONS

Figure 2: 1000SR Maxtrak  
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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Louisville, Kentucky, 40299 USA  
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# APPENDIX 1 - ENGINE OPTIONS - Powerunit options that may be fitted in place of technical specification offering subject to availability

## Crushers – Tier 2

**CAT C9.3 242kW (325hp) as per 1000 Maxtrak and CAT C9.3 250kW (335hp) as per Trakpactor 320**

Option 1.) Scania DC09 074A 257kW (350hp)

## Crushers – Stage V

**CAT C4.4 129kW (173hp) as per Metrotrak**

Option 1.) Volvo D5 129kW (173hp)

**CAT C7.1 205kW (275hp) as per Premiertrak 330**

Option 1.) Volvo D8 210kW (282hp)

