

# POWERSCREEN® TRAKPACTOR 480

HORIZONTAL IMPACTOR



TECHNICAL SPECIFICATION - REV 4 01/10/2024





**TRAKPACTOR 480**



# OVERVIEW

## SPECIFICATION

<b>Total Weight:</b>	47,750kg (105,270lbs) bypass conveyor & hopper extensions
<b>Transport</b>	<b>Length</b> 16.38m (53' 9") <b>Height</b> 3.6m (11' 10") <b>Width</b> 2.78m (9' 2")
<b>Working</b>	<b>Length</b> 15.89m (52' 2") <b>Height</b> 4.25m (13' 11") <b>Width</b> 5.43m (17' 10")
<b>Crusher Type:</b>	Twin apron 4 bar impact crusher, feed opening 1270mm x 870mm (50" x 34")
<b>Power Unit</b>	Tier 2 Scania DC13 331kW (443hp), Tier 4F Scania DC13 331kW (443hp) or Stage V Scania DC13 331kW (443hp)
<b>Plant Colour</b>	RAL 5021, RAL 7024, RAL 9005



## APPLICATIONS



**Aggregate**  
Blasted rock  
River rock



**Recycling**  
C&D waste  
Foundry waste



**Mining**  
Processed ores  
Processed minerals



## TRAKPACTOR 480



## FEATURES & BENEFITS

The Powerscreen® Trakpactor 480 horizontal shaft impactor is designed for processing soft to medium-hard primary & secondary materials such as natural rock & construction derived materials like asphalt, recycling & demolition waste. Material is fed into the large feed hopper, with a vibrating grizzly feeder which features a selectable crusher bypass facility & optional fines discharge conveyor. Load sensing ensures the wide crusher inlet opening receives a continuous feed of pre-screened material, avoiding unnecessary crusher wear.

The Powerscreen® Trakpactor 480's robust impact chamber features a twin apron, 4 bar rotor design, with hydraulic release aprons, hydraulic setting adjustment, hydraulic crusher overload & is driven directly off the engine via clutch for optimum fuel economy. Next, crushed material passes directly onto the full length product conveyor. The product conveyor features a raise/lower facility to aid clearance of rebar in the event of a blockage. The plant has been designed with ease of maintenance in mind. Hydraulic banks, battery access and control valves are at eye level to make setup and operation much easier.

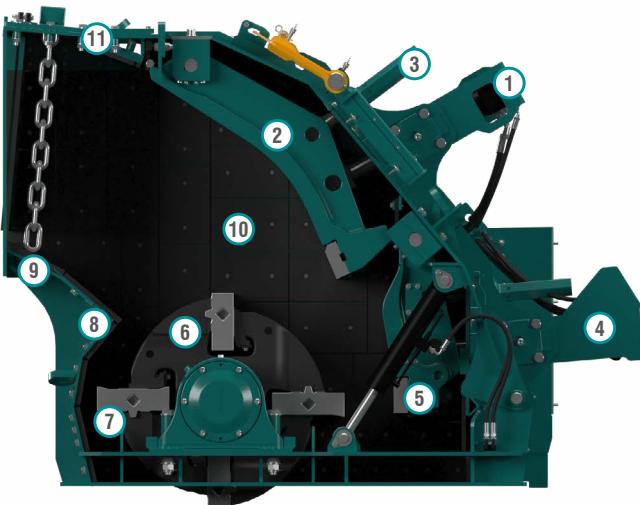
- Output potential of up to 480 tph / 529 US tph - depending on material type & crusher settings
- Suitable for a variety of feed materials, ideal for recycling, demolition & quarry applications
- Double deck grizzly feeder with under screen
- Load management system to control feeder speed
- Proven impact crusher with hydraulic overload protection, 4 bar rotor & twin apron design
- Heavy duty under crusher impact bars as standard
- Bypass conveyor selection on either side of plant (optional)
- Chamber drive via clutch & highly fuel efficient direct drive system
- Crusher speed variation through user friendly PLC control system
- Hydraulic raise/lower product conveyor
- Radio remote control as standard
- Powerscreen Pulse telemetry as standard



TRAKPACTOR 480



# CRUSHER



## PRINCIPAL COMPONENTS

1:	Control Cylinder	7:	Full Blow Bar
2:	Top Impact Apron	8:	Inlet Wear Beam
3:	Apron Adjustment Spindle	9:	Inlet Plate
4:	Control Cylinder	10:	Wear Liners
5:	Bottom Impact Apron	11:	Crusher Inlet lid
6:	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

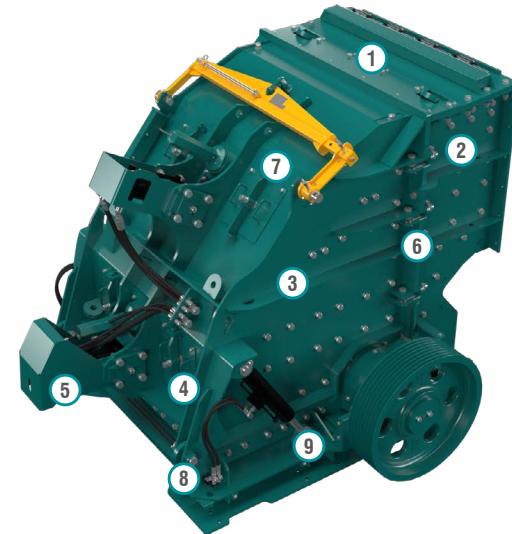


## TRAKPACTOR 480



# CRUSHER SPECIFICATION

<b>Feed opening:</b>	1270mm x 870mm (50" x 34")
<b>Max lump size*:</b>	450-500mm <sup>3</sup> (18-20in <sup>3</sup> ) / 800 x 800 x 250mm (31 x 31 x 10") *depending on material & blow bar specification
<b>Rotor width:</b>	1245mm (49")
<b>Rotor diameter:</b>	1065mm (42")
<b>Number of aprons:</b>	2
<b>Max clearance:</b>	Top apron: 180mm (7") Bottom apron: 190mm (7.5")
<b>Max OSS setting:</b>	150mm (6") upper apron, 75mm (3") lower apron
<b>Min CSS setting:</b>	50mm (2") upper apron, 18mm (0.7") lower apron
<b>Blow bars:</b>	Total of 4 blow bars
<b>Blow bar removal:</b>	Vertically
<b>Blow bar configuration:</b>	2 full & 2 half (optional 4 full)
<b>Setting adjustment:</b>	Hydraulic assist
<b>Overload protection:</b>	Hydraulic
<b>Rotor speeds:</b>	535 - 845rpm (30 - 40m/s) (98 - 131ft/s)
<b>Applications:</b>	Demolition / recycling / quarry
<b>Crusher weight:</b>	11,000kg (24,251lbs)
<b>Full blow bar weight:</b>	310kg (683lbs)
<b>Side liners:</b>	20mm (thick, abrasive resistant steel)



## PRINCIPAL COMPONENTS

- 1: Inlet lid
- 2: Main welded body
- 3: Impactor hinged section
- 4: Inspection covers
- 5: Hydraulic overload & adjustment cylinders
- 6: Toggle bolts
- 7: Inspection covers
- 8: Trunions
- 9: Hinged section opening cylinder



## TRAKPACTOR 480



# 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 4 reversible & replaceable blow bars

### **Bearings:**

Double row self aligning spherical roller bearing fitted each end of rotor

### **Aprons:**

Steel aprons with replaceable abrasion resistant wear plate on tip of bottom apron

### **Drive:**

Direct through wedge belts with tensioning system on the power unit

### **Lubrication:**

Rotor bearings are greased & fitted with inner & outer labyrinth seals

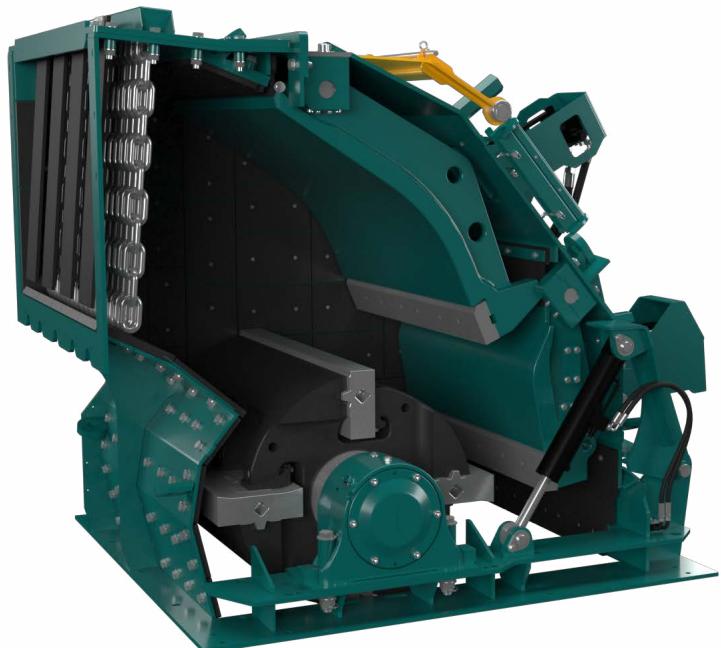
### **Blow bars:**

Standard blow bar is martensitic steel, options are available in martensitic 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 (maximum 20mm diameter, 500mm long) of steel or other uncrushable 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.

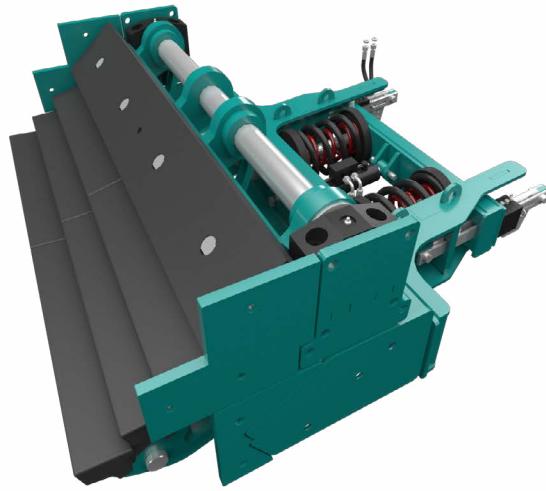




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## CRUSHER OPTIONS



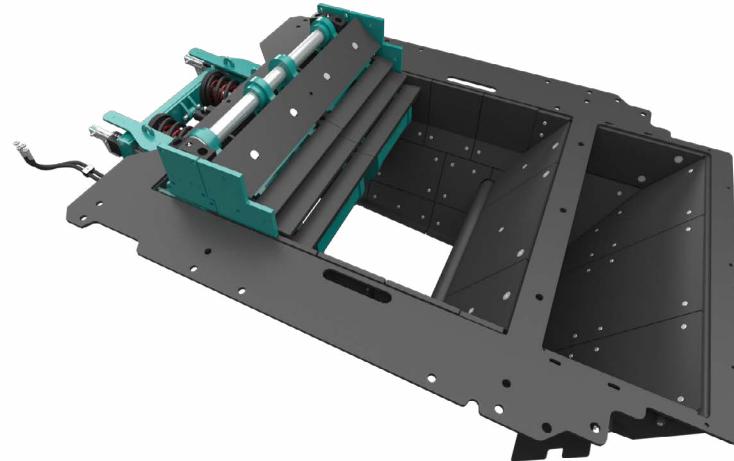
### GRINDING PATH

Part No.

MAN-TC052-023-K-003-REF2

MAN-TC052-023-K-003-REF2

- 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





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## HOPPER

Hydraulic folding hopper with wedge-lock system

**Loading length:** 4.81m (15' 10")

**Hopper width:** 2.6m (8' 6")

**Hopper capacity:** 7.2m<sup>3</sup> (9.4 cu. yd.)

**Hopper capacity (extensions):** 9.4m<sup>3</sup> (12.3 cu. yd.)

**Feed in height:** 4.25m (13' 11")

**Hopper width (extensions):** 3.15m (10' 4")

**Feed in height (extensions rear):** 4.25m (13' 11")

**Feed in height (extensions side):** 4.53m (14' 10")

**Hopper body:**

12mm thick abrasion resistant steel plate

Hydraulic locking as standard.



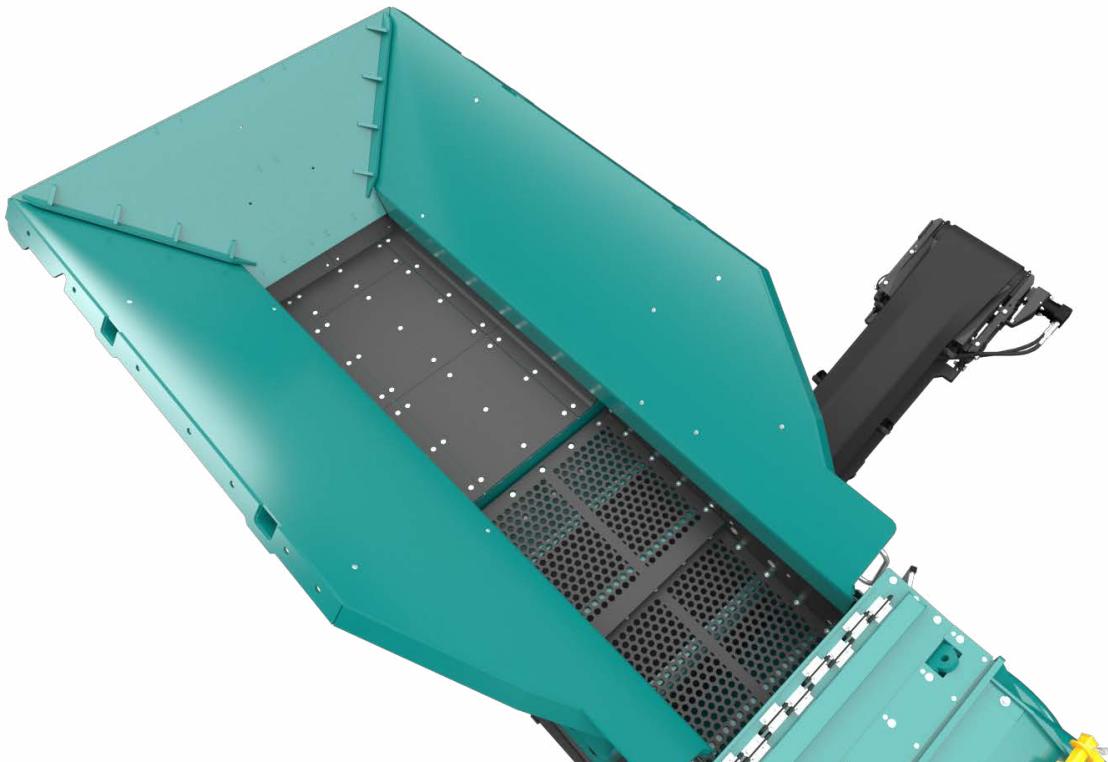


**TRAKPACTOR 480**



## VIBRATING GRIZZLY FEEDER

<b>Type:</b>	Spring mounted vibrating	<b>Mesh:</b>	Blanking mat standard, underscreen mesh available in 10mm (0.4"), 20mm (0.8"), 30mm (1.2"), 40mm (1.6") & 50mm (2")
<b>Vibrating unit:</b>	Twin heavy duty cast eccentric shafts running in spherical roller bearings. Gears coupled at non-drive end	<b>Punch plate:</b>	Available in 30mm (1.2"), 38mm (1.5"), 50mm (2"), 60mm (2.4"), 63mm (2.5") & 75mm (3")
<b>Length:</b>	4.41m (14' 6")	<b>Chute:</b>	Plant is fitted with a bypass chute, with an internal two way flap door to control direction of fines, either forward onto the product belt or down onto the optional bypass conveyor
<b>Width:</b>	1.16m (3' 10")		
<b>Pan:</b>	12mm (0.5") thick abrasion resistant steel base plate liners		
<b>Drive:</b>	Flange mounted hydraulic motor		
<b>Grizzly:</b>	2m (6' 7") long double section of welded tapered finger bars at 34mm (1.33") as standard or 38mm (1.5"), 50mm (2"), 60mm (2.4"), 63mm (2.5") & 75mm (3") optional nominal spacing fabricated in 20mm thick abrasion resistant steel		





**TRAKPACTOR 480**



# PRODUCT CONVEYOR

<b>Conveyor type:</b>	Fully removable modular unit. Shallow troughed with winged rollers & fully tunnelled with minimal snag areas
<b>Belt type:</b>	Toughflex EP500/3 8+2 with steel wire breaker ply
<b>Belt width:</b>	1100mm (43")
<b>Discharge height:</b>	3.78m (12' 6") when fully raised
<b>Stockpile volume:</b>	99m <sup>3</sup> (130 cu. yd.)
<b>Feedboot:</b>	Fabricated steel with abrasion resistant steel liners
<b>Impact area:</b>	Heavy duty under crusher impact bars
<b>Skirting:</b>	Fully skirted in rubber up to magnet discharge area
<b>Drive:</b>	Hydraulic motor direct to head drum
<b>Lubrication:</b>	Centralised grease points for lubrication of shaft bearings
<b>Belt covers:</b>	Optional aluminium removable dust covers
<b>Belt adjustment:</b>	Belt tensioning is by use of screw adjustment at the head drum
<b>Speed wheel:</b>	Designed to stop plant feed if the discharge conveyor slows or stops

## DUST SUPPRESSION SYSTEM

Spray bars with atomiser nozzles mounted over product conveyor and piped to an inlet manifold for customer water supply or optional pump.

<b>Type:</b>	Clean water multi atomising nozzles
<b>Inlet:</b>	Single point on chassis
<b>Inlet pressure:</b>	3 bar (44psi)
<b>Water supply:</b>	24 L/min (6.3G/min) minimum
<b>Frost protection:</b>	Via system main valves
<b>Pump:</b>	Optional





**TRAKPACTOR 480**



## POWER UNIT & HYDRAULICS

### **Tier 2 Equivalent:**

#### **Operating conditions:**

Scania DC13 331kW (443hp)

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:**

1500 - 1900rpm

#### **Emission control technique:**

Not applicable

#### **Plant drive:**

High quality pumps driven via  
engine PTO's

#### **Clutch type:**

Desch Revox 14" wet clutch

### **Tier 4F:**

#### **Operating conditions:**

Scania DC13 331kW (443hp)

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:**

1500 - 1900rpm

#### **Emission control technique:**

Selective Catalytic Reduction (SCR)

#### **Plant drive:**

High quality pumps driven via engine  
PTO

#### **Clutch type:**

Desch Revox 14" wet clutch

### **Stage V:**

#### **Operating conditions:**

Scania DC13 331kW (443hp)

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:**

1500 - 1900rpm

#### **Emission control technique:**

Selective Catalytic Reduction (SCR)

#### **Plant drive:**

High quality pumps driven via engine  
PTO

#### **Clutch type:**

Desch Revox 14" wet clutch

#### **Fuel tank capacity:**

769 L (203 US Gal)

#### **Hydraulic tank capacity:**

636 L (168 US Gal)

#### **Reductant tank capacity:**

60 L (16 US Gal)

#### **Crusher drive:**

Direct drive via wedge belts  
Crushing performance can be tuned by  
changing engine speed via the PLC .

#### **Drive tensioning:**

VEE belt tensioner system

#### **Tip speed range:**

4 high blow bars: 30 - 35m/s  
2 high blow bars: 35 - 40m/s



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## TRACKS

### TRACKS

<b>Type:</b>	Heavy duty tracks, bolted to chassis on pads & pins
<b>Sprocket centres:</b>	3.72m (12' 2")
<b>Track width:</b>	500mm (1' 8")
<b>Gradeability:</b>	30° maximum
<b>High speed:</b>	1kph (0.63 mph)
<b>Drive:</b>	Two integral hydraulic motors
<b>Tensioning:</b>	Hydraulic adjuster, grease tensioned





**TRAKPACTOR 480**



# PLANT CONTROLS & OTHER

## PLANT CONTROLS

- Full PLC control system
- Full colour backlit screen
- Complete pictorial user controls
- Multi-function backlit menu buttons
- Full system diagnostics
- Sequential auto start up
- Main controls
  - Engine/crusher speed
  - Feeder (start/stop/speed)
  - Product conveyor (start/stop)
  - Product conveyor raise/lower
  - Side conveyor
  - Crusher control/screen setup

## GUARDS

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

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

## PLATFORMS

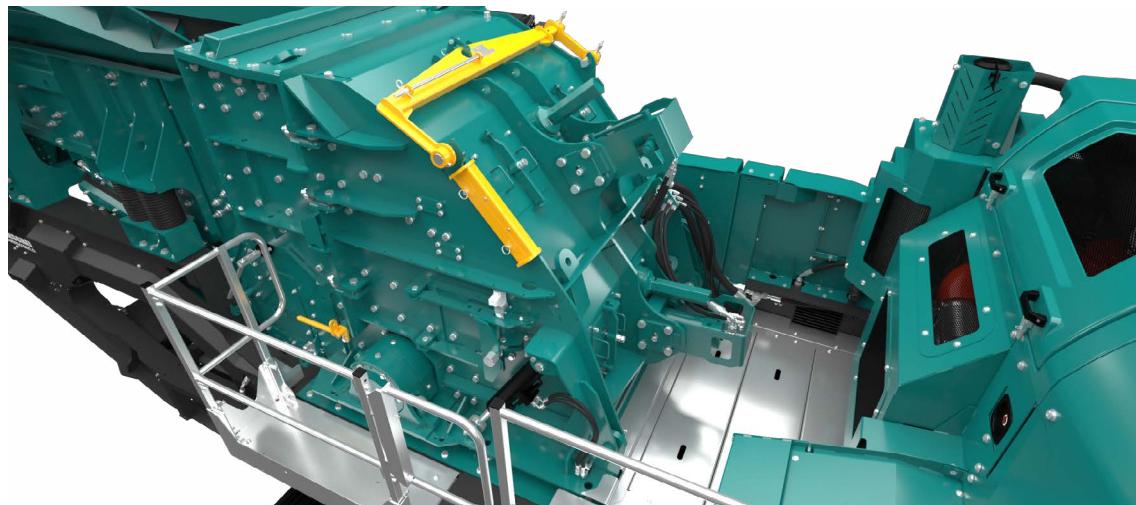
Platforms are provided for maintenance on both sides of the feeder & impactor, these are fitted with double row handrails & access ladders.

## CHASSIS

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

## UMBILICAL CONTROL

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





## TRAKPACTOR 480



# OPTIONS

## BYPASS CONVEYOR

<b>Conveyor type:</b>	Troughed EP400/3 4+2 covers hydraulically folding
<b>Belt width:</b>	650mm (26")
<b>Discharge height:</b>	2.59m (8' 6")
<b>Stockpile volume:</b>	32m <sup>3</sup> (42 cu. yd.)
<b>Drive:</b>	Direct hydraulic motor
<b>Lubrication:</b>	Centralised grease points for lubrication of shaft bearings
<b>Position:</b>	RHS or LHS

## SINGLE POLE & TWIN POLE MAGNETS

<b>Magnet type:</b>	Suspended self cleaning over band with endless belt
<b>Magnet block:</b>	836 x 530mm (33" x 21")
<b>Drive:</b>	Direct drive hydraulic motor
<b>Control:</b>	Pre-set variable speed
<b>Discharge:</b>	Via stainless steel shedder plate Hydraulic raise / lower RHS discharge only

## BLOW BARS

Standard blow bars supplied with plant are 2 high & 2 half martensitic steel. 2 further options are available:

<b>High chrome:</b>	Suitable for medium to hard rock applications where no steel is present in the feed material. Good wear characteristics
<b>Ceramic:</b>	Suitable for applications with limited steel in feed. Improved wear characteristics over standard martensitic blow bars
<b>4 full blow bars:</b>	Available in all options

## 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)

## HOPPER EXTENSIONS

<b>Hopper width:</b>	3.15m (10' 4")
<b>Hopper capacity:</b>	9.4m <sup>3</sup> (12.3 cu. yd.)
<b>Body:</b>	12mm thick abrasion resistant steel plate





**TRAKPACTOR 480**



## ⬇️ **OPTIONS 1**

### **OTHER OPTIONS**

- Grizzly decks 50mm, 63mm & 75mm
- Punch plates cartridges 38mm, 50mm, 63mm & 75mm
- High chrome blow bars
- Ceramic blow bars
- 4 full size blow bars in lieu of 2 full 2 half blow bars
- Left and right hand bypass conveyor
- Single pole or twin pole over-band magnets (hydraulic raise/lower)
- Plant lighting
- Mechanical belt weigher
- Electric water pump for dust suppression
- Hot/cold climate oils
- Hopper extensions
- Dust covers





TRAKPACTOR 480



# 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

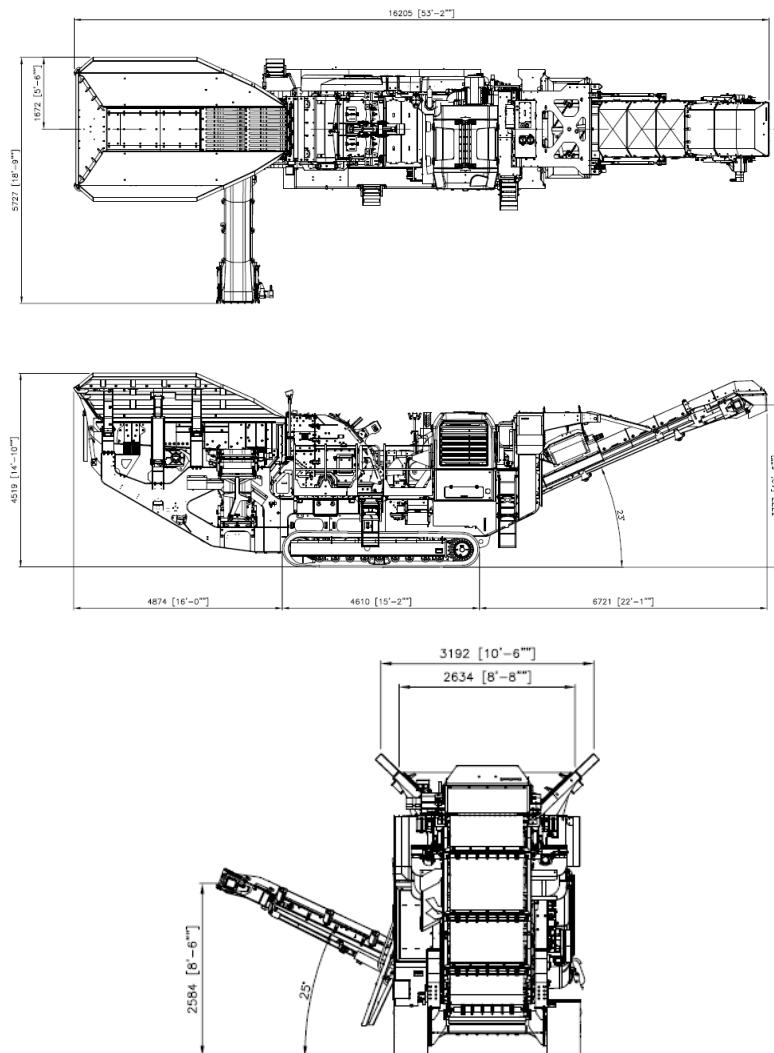


**TRAKPACTOR 480**



# DIMENSIONS

Figure 1: Trakpactor 480  
Working Position



**MORE DIMENSIONS OVERLEAF**

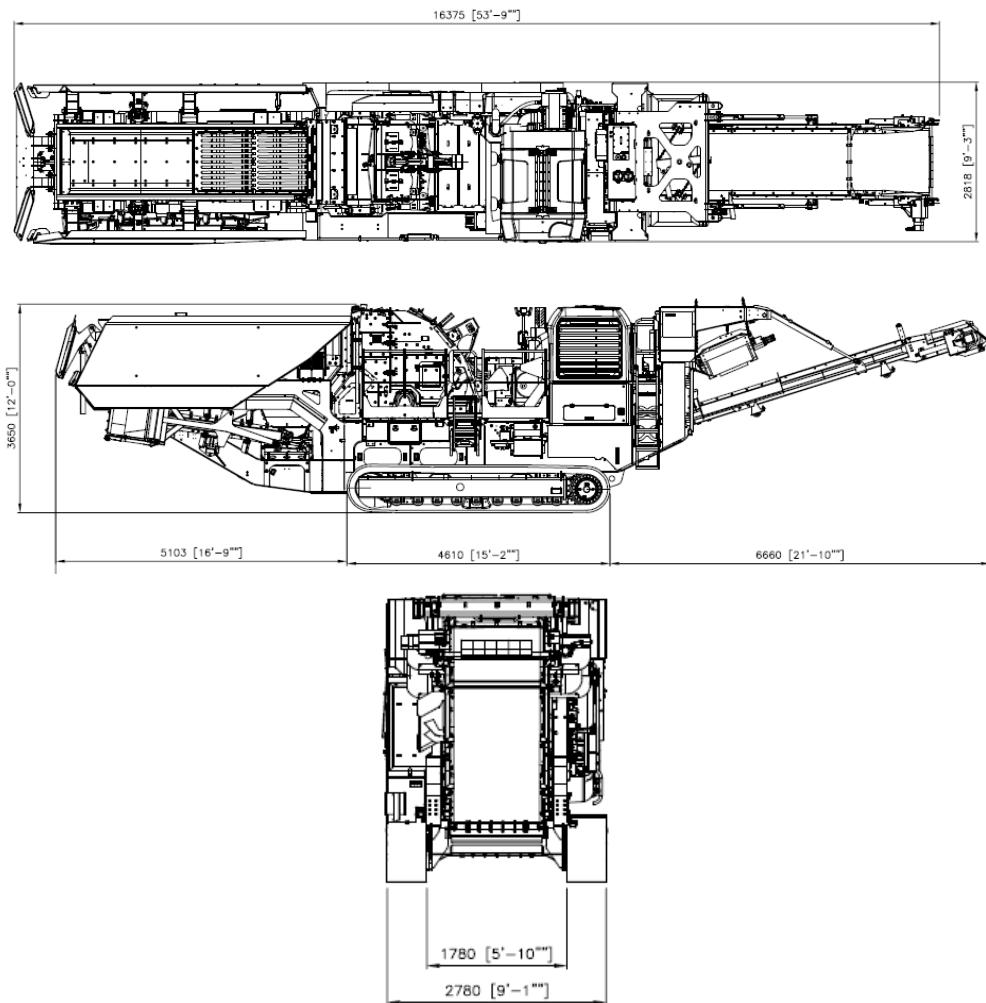


**TRAKPACTOR 480**



## DIMENSIONS

Figure 2: Trakpactor 480  
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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## 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)

