

POWERSCREEN® TRAKPACTOR 480SR

HORIZONTAL IMPACTOR



TECHNICAL SPECIFICATION - REV 5 01/10/2024





TRAKPACTOR 480SR



OVERVIEW

SPECIFICATION

Total Weight:	56,150kg (125,112lbs) bypass conveyor, hopper extensions & twin pole magnet
SR Unit:	9,600kg (21,164lbs)
Transport	Length 19.05m (62' 6")
	Height 3.6m (11' 10")
	Width 3.33m (10' 11")
Working	Length 18.52m (60' 9")
	Height 4.25m (13' 11")
	Width 5.98m (19' 8")
Crusher Type:	Twin apron 4 bar impact crusher, feed opening 1270mm x 870mm (50" x 34")
Power Unit	Tier 2 Scania DC13 331kW (443hp), Tier 4F Scania DC13 331kW (443hp) or Stage V Scania DC13 331kW (443hp)
Plant Colour	RAL 5021, RAL 7024, RAL 9005



APPLICATIONS



Aggregate

Blasted rock
River rock



Recycling

C&D waste
Foundry waste



Mining

Processed ores
Processed minerals



TRAKPACTOR 480SR



FEATURES & BENEFITS

The Powerscreen® Trakpactor 480SR 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 480SR'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. The SR section is fully detachable using quick release hydraulics and electrics. To enable this, the recirculation conveyor slews into transport position along the side of the machine. The recirculating conveyor can also slew from recirculating to stockpiling position.

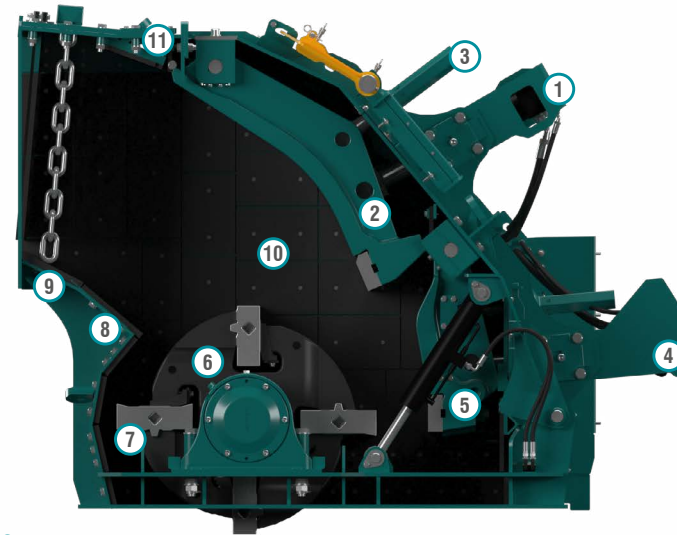
- Output potential of up to 480 tph / 529 US tph - depending on material type & crusher settings
- Suitable for a variety of feed materials, ideal for recycling, demolition & quarry applications
- Double deck grizzly feeder with under screen
- Load management system to control feeder speed
- Proven impact crusher with hydraulic overload protection, 4 bar rotor & twin apron design
- Heavy duty under crusher impact bars as standard
- Bypass conveyor selection on RHS of plant (optional)
- Chamber drive via clutch & highly fuel efficient direct drive system
- Crusher speed variation through user friendly PLC control system
- Optional hydraulic raise/lower magnet
- Recirculating conveyor can slew from recirculating to stockpiling position
- SR section detaches using quick release hydraulics & electrics - recirculating conveyor remains on main unit.
- Radio remote control as standard
- Powerscreen Pulse telemetry as standard



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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 the crusher opening & slides down the inlet chute where it is struck by the blow bar which is held within the rotor. This initial impact breaks the material which is then accelerated onto the top apron where more reduction takes place on impact. This material then falls back into the blow bars & the cycle repeated until the material is small enough to pass between the apron & the blow bar. Once through this gap, 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

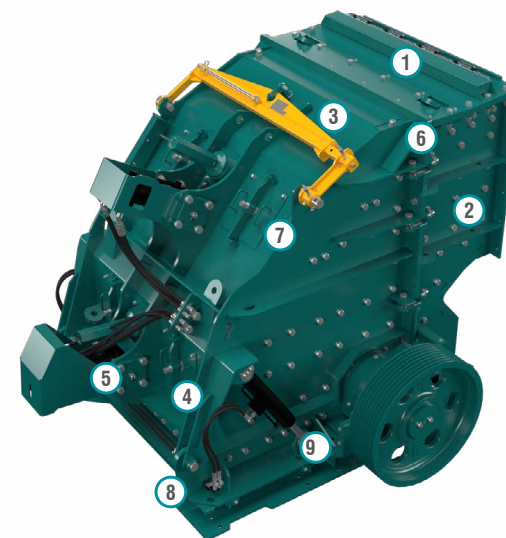


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CRUSHER SPECIFICATION

Feed opening:	1270mm x 870mm (50" x 34")
Max lump size*:	450-500mm ³ (18-20in ³) / 800 x 800 x 250mm (31 x 31 x 10") *depending on material & blow bar specification
Rotor width:	1245mm (49")
Rotor diameter:	1065mm (42")
Number of aprons:	2
Max clearance:	Top apron: 180mm (7") Bottom apron: 190mm (7.5")
Max OSS setting:	150mm (6") upper apron, 75mm (3 ") lower apron
Min CSS setting:	50mm (2 ") upper apron, 18mm (0.7 ") 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:	535 - 845rpm (30 - 40m/s) (98 - 131ft/s)
Applications:	Demolition / recycling / quarry
Crusher weight:	11,000kg (24,251lbs)
Full blow bar weight:	310kg (683lbs)
Side liners:	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



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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 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

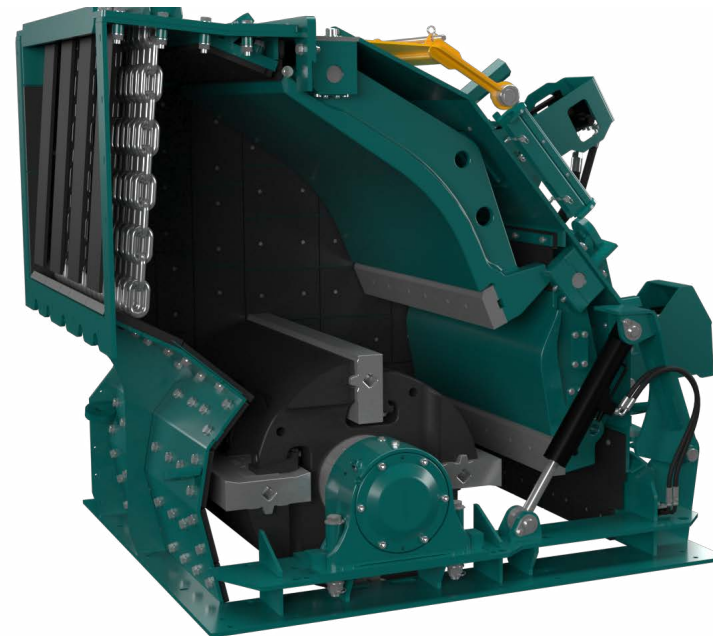
Blow bars:

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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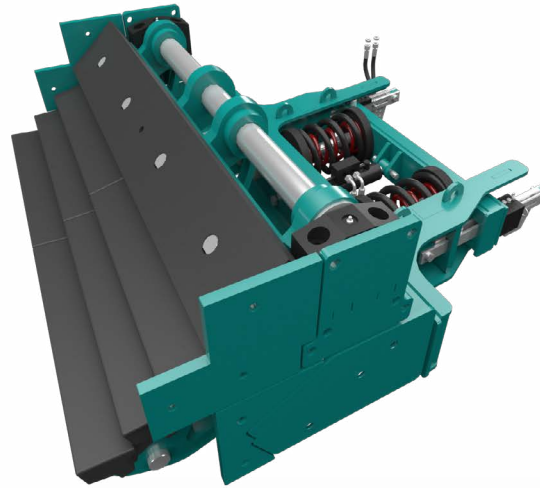
↓ CRUSHER OPTIONS

GRINDING PATH

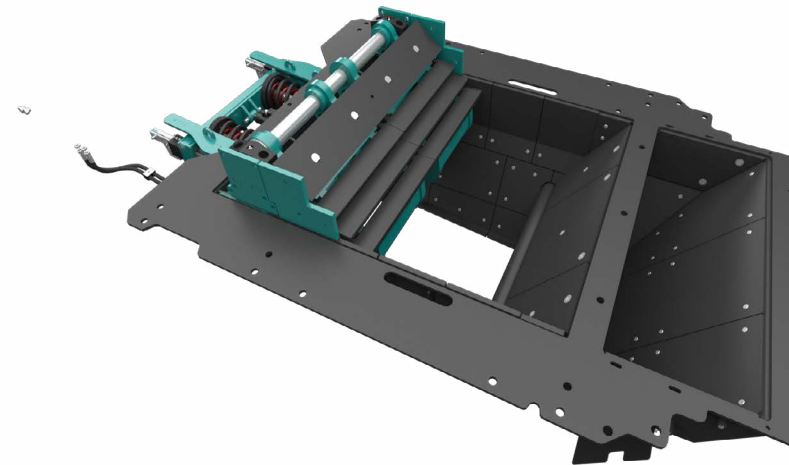
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MAN-TC052-023-K-003-REF2



- 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: 7.2m³ (9.4 cu. yd.)

Hopper capacity (with extensions): 9.4m³ (12.3 cu. yd.)

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

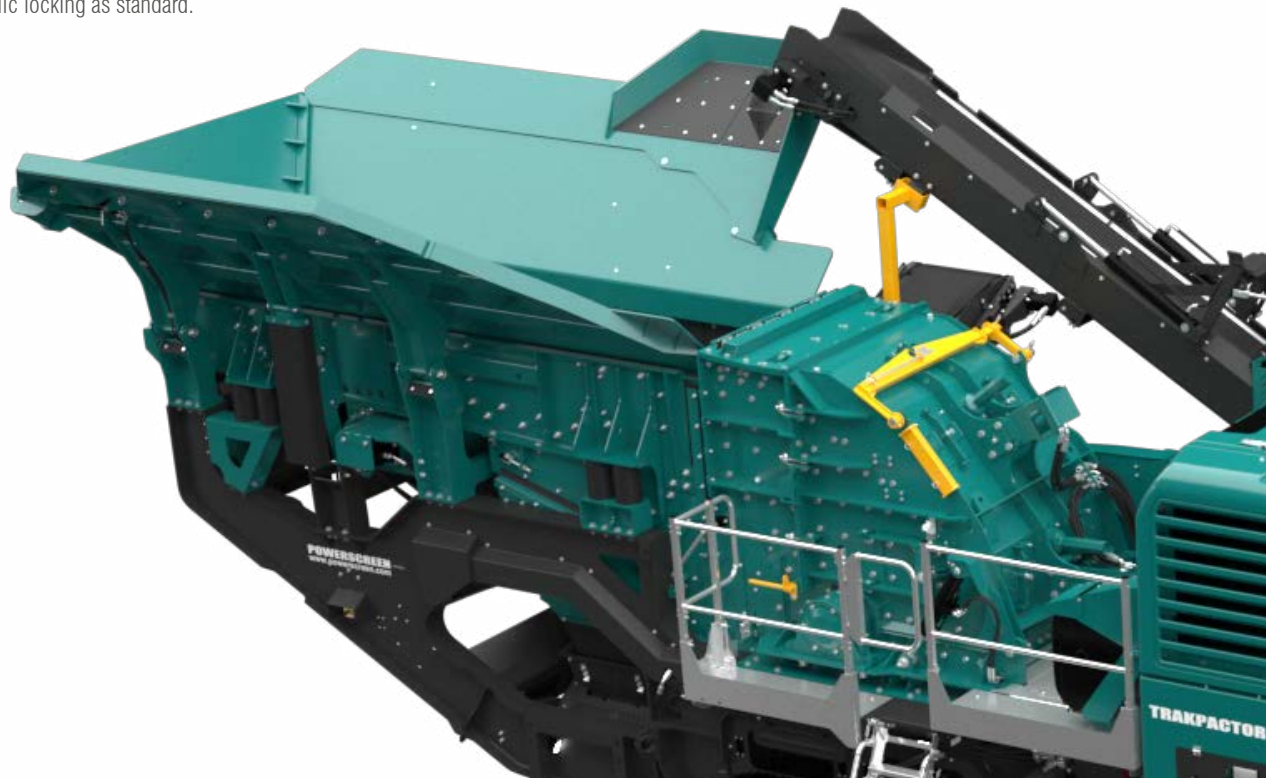
Hopper width (extensions): 3.15m (10' 4")

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.



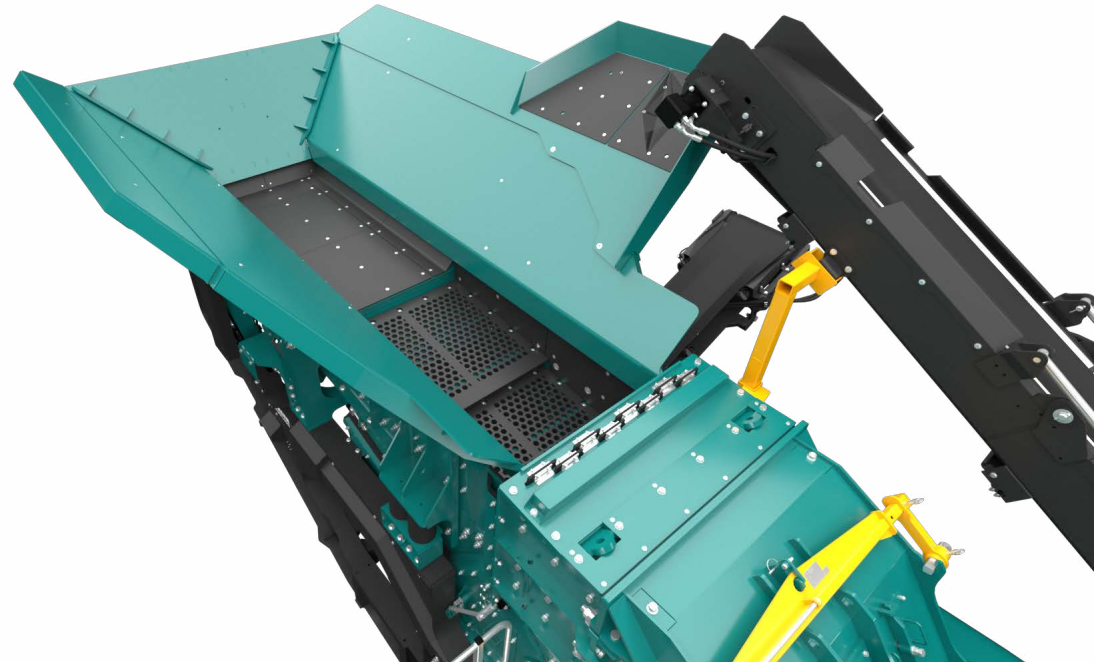


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VIBRATING GRIZZLY FEEDER

Type:	Spring mounted vibrating	Mesh:	Blanking mat standard, underscreen mesh available in 10mm (0.4"), 20mm (0.8"), 30mm (1.2"), 40mm (1.6") & 50mm (2")
Vibrating unit:	Twin heavy duty cast eccentric shafts running in spherical roller bearings. Gears coupled at non-drive end	Punch plate:	Available in 30mm (1.2"), 38mm (1.5"), 50mm (2"), 60mm (2.4"), 63mm (2.5") & 75mm (3")
Length:	4.41m (14' 6")	Chute:	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
Width:	1.16m (3' 10")		
Pan:	12mm (0.5") thick abrasion resistant steel base plate liners		
Drive:	Flange mounted hydraulic motor		
Grizzly:	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		





TRAKFACTOR 480SR



PRODUCT CONVEYOR

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

DUST SUPPRESSION SYSTEM

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

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





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POWER UNIT & HYDRAULICS

Tier 2 Equivalent:	Scania DC13 331kW (443hp)	Emission control technique:	Selective Catalytic Reduction (SCR)
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.	Plant drive:	High quality pumps driven via engine PTO
Operating rpm range:	1500 - 1900rpm	Clutch type:	Desch Revox 14" wet clutch
Emission control technique:	Not applicable	Fuel tank capacity:	769 L (203 US Gal)
Plant drive:	High quality pumps driven via engine PTO's	Hydraulic tank capacity:	636 L (168 US Gal)
Clutch type:	Desch Revox 14" wet clutch	Reductant tank capacity:	60 L (16 US Gal)
Tier 4F:	Scania DC13 331kW (443hp)	Crusher drive:	Direct drive via wedge belts Crushing performance can be tuned by changing engine speed via the PLC .
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	Drive tensioning:	VEE belt tensioner system
Operating rpm range:	1500 - 1900rpm	Tip speed range:	4 high blow bars: 30 - 35m/s 2 high blow bars: 35 - 40m/s
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:	Scania DC13 331kW (443hp)		
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:	1500 - 1900rpm		



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TRACKS

TRACKS

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





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POST-SCREEN & CONVEYORS

POST-SCREEN & FINES CONVEYOR

Type:	4.27m x 1.53m (14' x 5') double deck 2 bearing screen, side tension media
Drive:	Direct hydraulic motor
Screen speed:	1000rpm
Angle:	23°
Belt width:	1400mm (55")
Belt type:	EP400/3 4+2 covers
Discharge height:	3.25m (10' 8")
Stockpile volume:	63m³ (83 cu. yd.)
Detach:	Quick detach fitted as standard

CROSS CONVEYOR

Type:	Flat belt EP400/3 4+2 covers
Belt width:	500mm (20")
Drive:	Direct hydraulic motor
Transport:	Hydraulic retraction

HYDRAULIC FOLDING RECIRCULATING CONVEYOR

Type:	Chevron belt EP315/3 3+1.5 covers
Belt width:	500mm (20")
Chevron:	25mm (1")
Drive:	Direct hydraulic motor
Stockpile:	From under cross conveyor

Conveyor can recirculate or slew around and stockpile - stockpile height - 4.8m (15' 9") / Volume : 204m³ (267 cu.yd).

All auxiliary functions on the SR section are controlled by radio remote as standard. The recirculating conveyor hydraulically folds alongside the machine for transport. The rest of SR section can then be removed for transport via quick release hydraulics & electrics.





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PLANT CONTROLS & OTHER

GUARDS

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

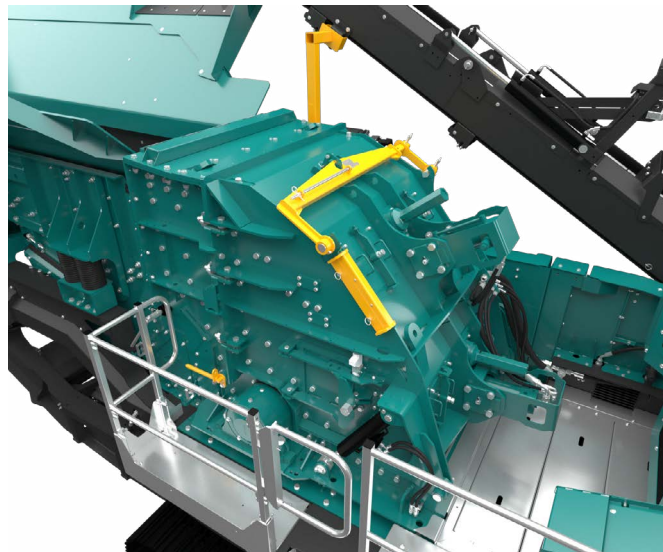
The guards provided are designed & manufactured to CE & ANSI standards.

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.



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)
- Screen/fines/cross/recirculating (SR only)
- Product conveyor raise/lower
- Side conveyor
- Crusher control/screen setup

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.



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OPTIONS

BYPASS CONVEYOR

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

MIDSIZE STOCKPILING CONVEYOR

Conveyor type:	Troughed EP400/3 4+2 covers
Belt width:	500mm (20")
Discharge height:	3.7m (12' 1")
Stockpile volume:	101m ³ (132 cu. yd.)
Drive:	Direct hydraulic motor
Lubrication:	Centralised grease points for lubrication of shaft bearings
Position:	RHS, Conveyor is hook-on and requires separate transport

SINGLE POLE & TWIN POLE MAGNETS

Magnet type:	Suspended self cleaning over band with endless belt
Magnet block:	836 x 530mm (33" x 21")
Drive:	Direct drive hydraulic motor
Control:	Pre-set variable speed
Discharge:	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:

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

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



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↓ 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
- 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





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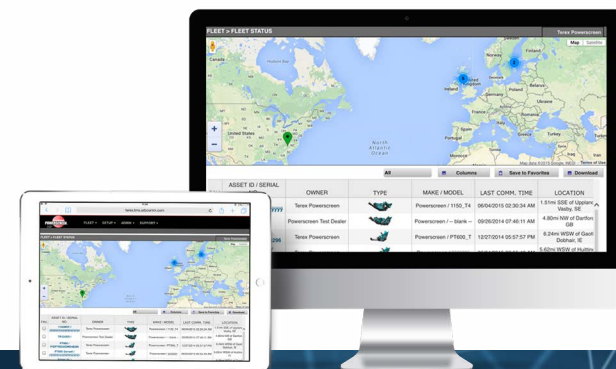


POWERSCREEN PULSE

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**

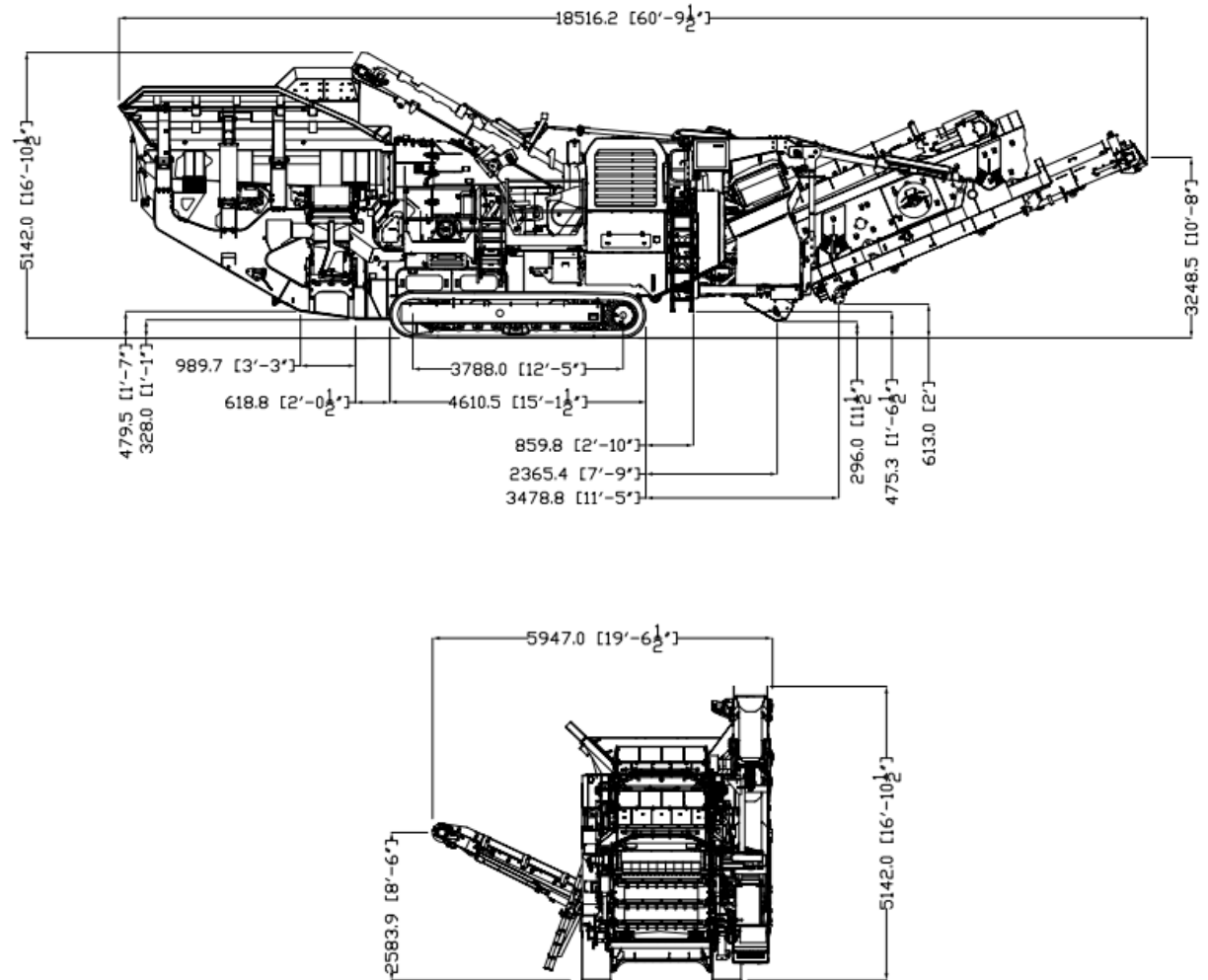


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DIMENSIONS

Figure 1: Trakpactor 480SR
Working Position



MORE DIMENSIONS OVERLEAF

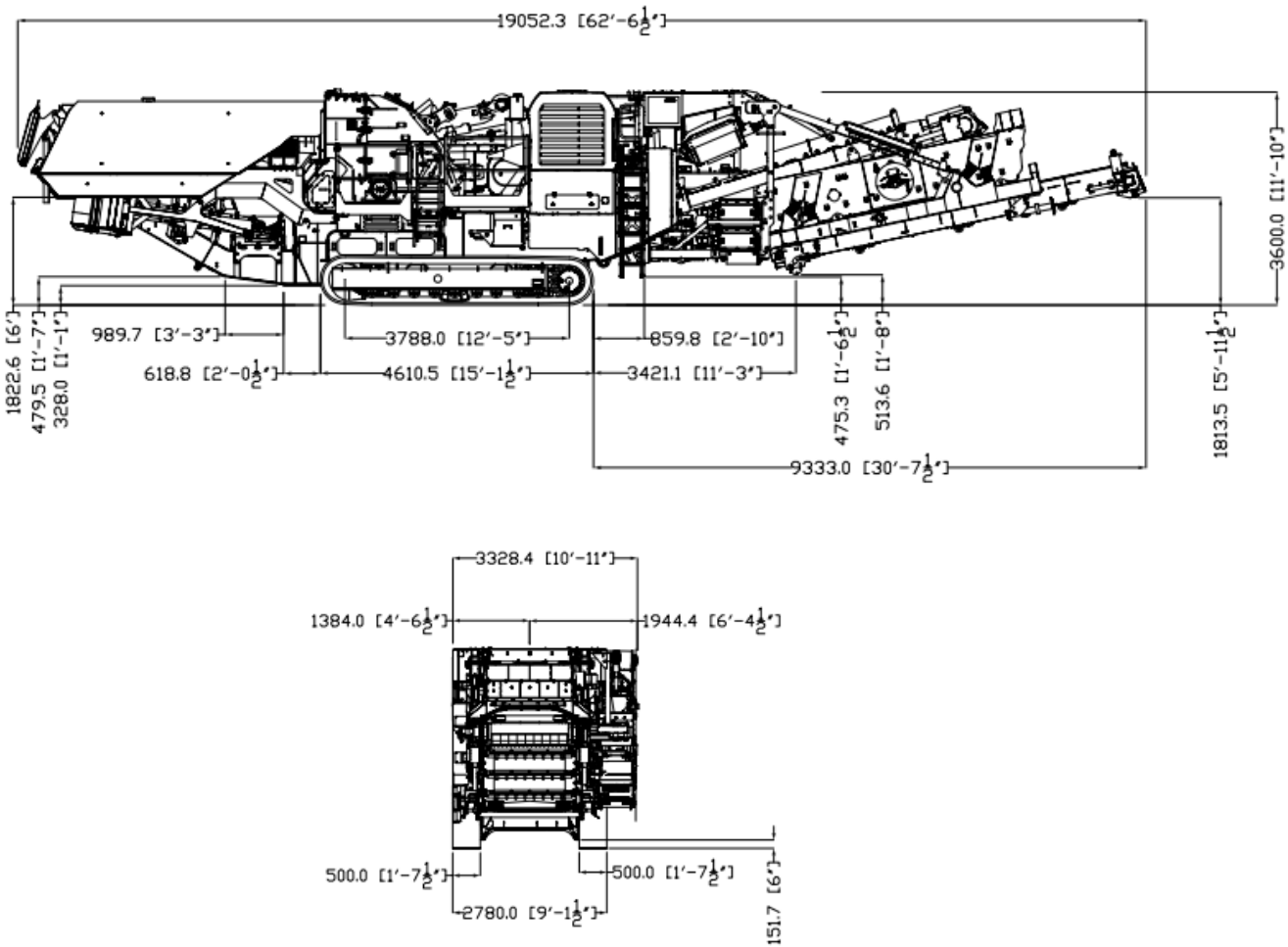


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DIMENSIONS

Figure 2: Trakpactor 480SR
Transport Position



MORE DIMENSIONS OVERLEAF

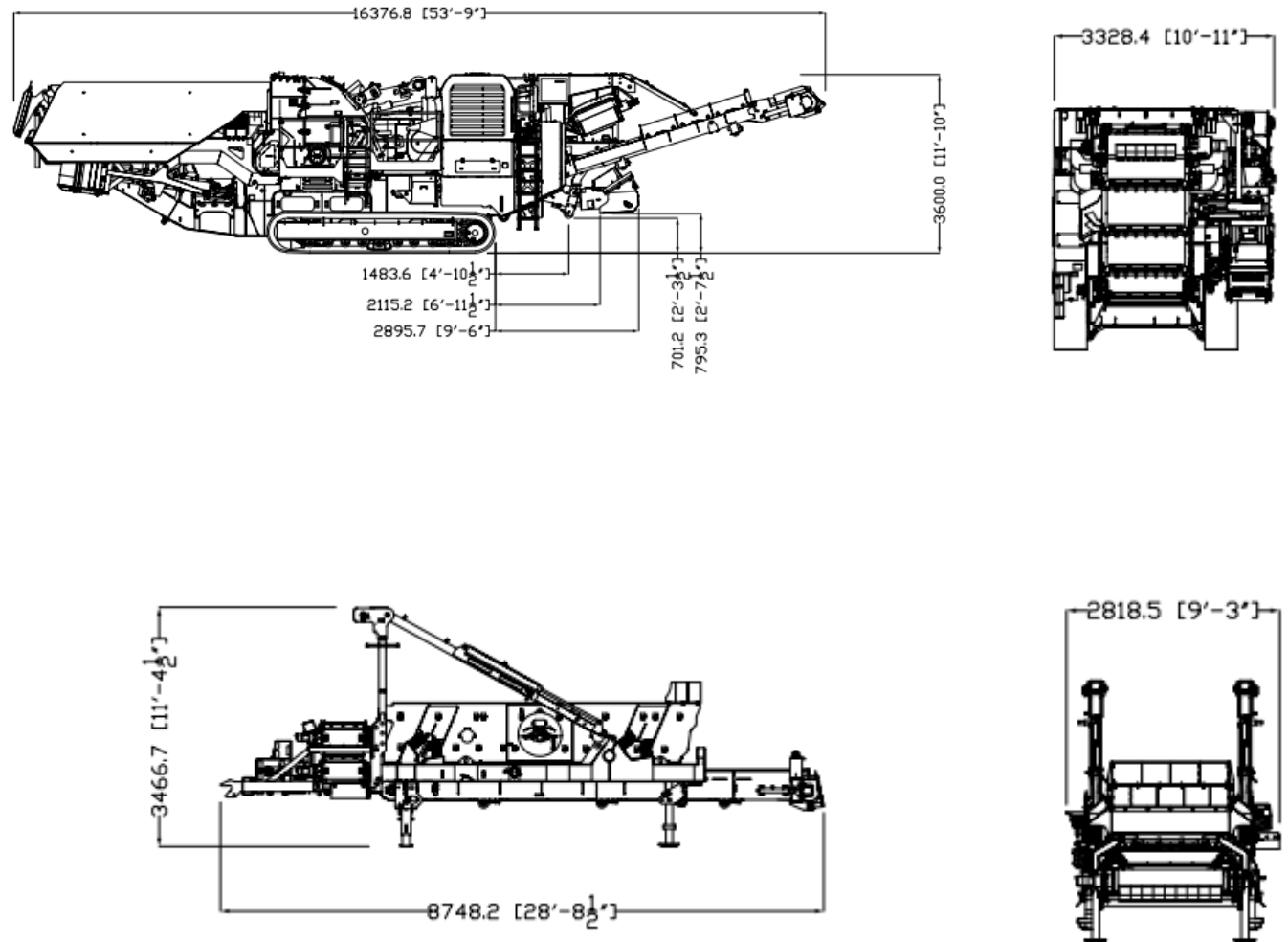


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DIMENSIONS

Figure 3: Trakpactor 480SR
Transport Position - SR Detached





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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