Powerscreen® Premiertrak 600
Jaw Crusher

SPECIFICATION - Rev 2. 01/01/2017



POWERSCREEN®
A TEREX BRAND

Powerscreen® Premiertrak 600

SPECIFICATION Rev 2. 01/01/2017

Specification		Premiertrak 600
Total weight		68,875kg (151,843lbs) including magnet & dirt conveyor.
Transport	**Length**	17.1m (56’ 1”)
	Width	3.0m (9’ 10”)
	Height	3.8m (12’ 5”)
Working	**Length**	16.63m (54’ 7”)
	Width	8.09m (26’ 5”) with side conveyor
	Height	4.49m (14’ 9”)
Crusher type:		Single toggle jaw, feed opening 1200mm x 820mm (47”x32”)
Power unit:		Caterpillar C13 328kW (440hp) or Scania DC13 331kW (444hp) Direct Drive
Paint colour:		Blue RAL 5021, Grey RAL 7024, Black RAL 9005

Features & Benefits

The Powerscreen® Premiertrak 600 range of high performance primary jaw crushing plants are designed for large and medium scale operators in quarrying, demolition, recycling & mining applications.

The range includes the Premiertrak 600 & Premiertrak 600E both equipped with the advanced high performance 1200mm x 820mm Terex chamber. Built for the toughest of applications, the robust construction and modern design of the Premiertrak 600 ensures optimum performance, reliability and efficiency.

- Output potential up to 600tph (661 US tph) (Depending on application & CSS)
- Ground level quick set-up with hydraulic folding feed hopper with hydraulic locking system
- Heavy duty wear resistant feed hopper
- Stepped self-cleaning grizzly feeder with under feeder screen
- Wide bypass chute to optimise material flow
- Aggressive crushing action with high swing jaw encouraging material entry into crushing chamber
- Fully hydraulic crusher setting adjustment
- Excellent under crusher access for removal of wire with hydraulic raise lower product conveyor
- Angle adjustable product conveyor, lowers for access & transport
- Low fuel consumption due to highly efficient direct drive system and low engine RPM
- Easily accessed power-unit canopy
- Modern & user-friendly PLC control system with auto start facility
- Remote control via umbilical
- Dust suppression system

Applications

Aggregate

- Sand & gravel
- Blasted rock
- River rock

Recycling

- C&D waste
- Overburden
- Foundry waste

Mining

- Processed ores
- Processed minerals

All specifications subject to change without prior notice

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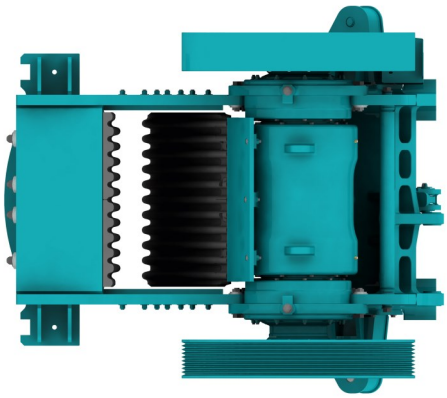
Jaw Crusher

Crusher type:	**Single toggle Jaw with hydraulic setting adjustment**
Feed opening:	**1200mm x 820mm (47” x 32”)**
Bearings:	**Self aligning spherical roller**
Lubrication:	**Grease**
Drive:	**High Performance wedge belts with screw adjust tensioner**
Minimum setting:	**75mm (3”) CSS**
	All setting measured from root to tip & subject to suitability of feed material. This plant has been designed for both quarry & recycling applications where appropriate. For maximum material strength of 500kN 10% Fines, 300MPa compressive strength. If in doubt please contact your dealer or Powerscreen.
Maximum setting:	**200mm (8”) CSS standard jaws**
Hydraulic adjustment:	**Hydraulically adjusted C.S.S using wedge system. Electric push button control**



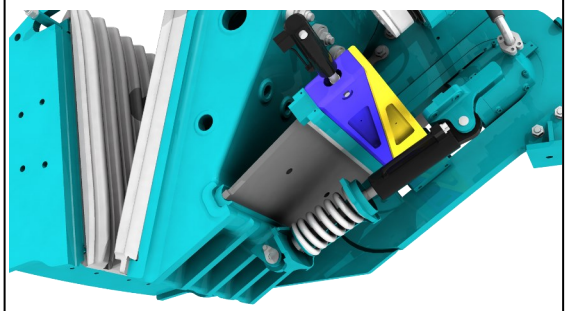
HA Jaw Chamber





Chamber Features

- Quick & easy setting adjustment
- Drawback rod hydraulic adjustments not required during setting changes
- Cartridge type bearings
- Overlap jaw protects tip of jawstock
- One piece fixed jaw support
- Proven manganese liner retention
- Replaceable bolt-on jawstock toe
- Proven manganese liner retention—through bolt design



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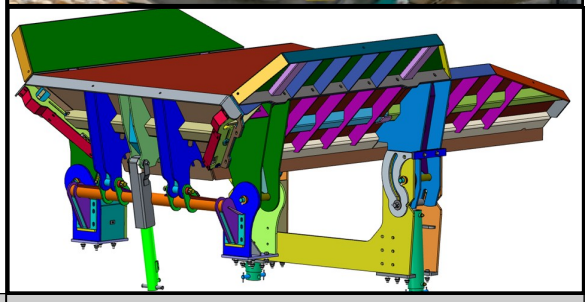
Hopper

Hopper type:	Hydraulic locking from ground level
Hopper length:	4.72m (15’ 6”)
Hopper width:	2.2m (7’ 3”) standard 4m (13’ 1”) with extensions
Hopper capacity:	9.3m^3 (12.2 cu. yd.) / 14.2m^3 (18.6 cu. yd.)
Hopper body:	Abrasion resistant feed hopper with hydraulic struts and pins

*Optional Large Flare Hopper Extensions:

Capacity: 10.8m^3 (14.1 cu.yd.)
370mm higher feed in height over standard hopper





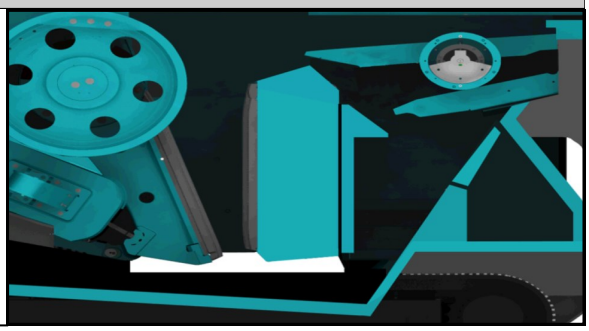
Vibrating Grizzly Feeder

Type:	Spring mounted vibrating pan & grizzly feeder
Vibrating Unit:	Twin heavy-duty cast eccentric shafts running in spherical roller bearings, gear coupled at drive end
Drive:	Flange mounted hydraulic motor
Pan length:	2.15m (7’ 1”)
Pan width:	1.16m (3’ 10’’)
Grizzly:	2 replaceable stepped cartridge type grizzlies 75mm (3’’) nominal aperture, self cleaning
Grizzly length:	2.12m (6’ 11’’)
Grizzly width:	1.14m (3’ 9’’)
Under-screen:	40mm (1.5’’) mesh fitted as standard
Mesh deck:	1.38m (4’ 6”)long x 1.16m(3’ 10’’) wide



Plant Chute-work

Crusher feed chute:	Bolted assembly. 12mm mild steel side walls with 15mm wear plates
Grizzly fines/ bypass	Lined with abrasion resistant wear plate. Adjustable deflector plate to direct material to dirt conveyor or product conveyor

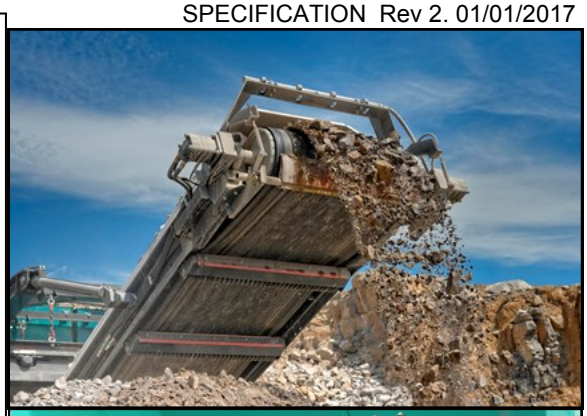


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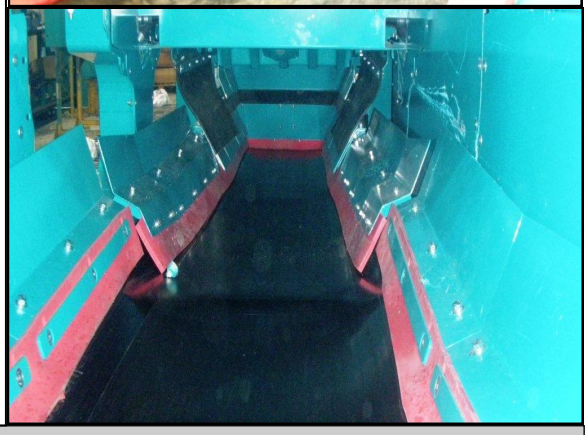
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Product Conveyor

Conveyor type:	**Troughed belt conveyor**
Design:	**Hydraulic raise & lower facility to aid rebar removal & transportation. Can be raised or lowered whilst crushing. Fully removable modular unit to aid access & maintenance. Lower section raises & lowers for optimum ground clearance.**
Belt type:	**EP500/3 with 8mm top & 2mm bottom cover, vulcanised**
Belt width:	**1200mm (47")**
Discharge height:	**4.0m (13' 1")**
Stockpile volume:	**136m^3 (178 cu. yd.)**
Max. clearance:	**450mm (18") (jaw to belt)**
Drive:	**Twin direct drive hydraulic motor**
Tunnel:	**Conveyor fitted with tunnel & side covers to minimise rebar snagging**
Feed-boot:	**Mild steel plate with abrasion resistant steel liners at feed point**
Belt adjustment:	**Screw adjusters at head drum**
Belt scraper:	**SCS style**
Lubrication:	**Low level remote head drum grease points**
Skirting:	**Wear resistant rubber skirts fitted up to magnet**







Dust Suppression System

Sprays bars with atomiser nozzles mounted over crusher mouth, product conveyor feed & discharge points. Piped to an inlet manifold for client's pressured water supply

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

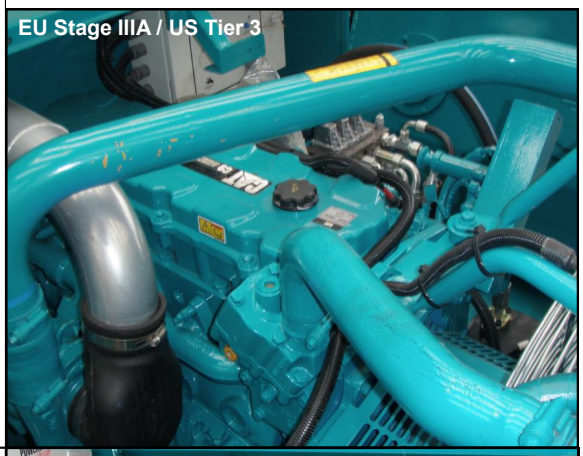


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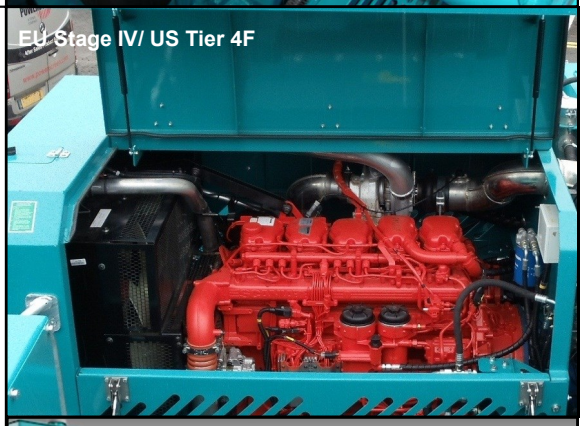
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Power unit

EU Stage IIIA / US Tier 3:	**Caterpillar C13, 6 cylinder, direct injection 328kW (440hp) at 1800rpm ***
Operating conditions:	**Ambient temp. +30°C & –5°C (86ºF & 23ºF) altitudes up to 1000m (3281ft) above sea level**
Operating rpm range:	**1700-1900 rpm**
Plant drive:	**Direct drive**
Fuel tank capacity:	**750 L (198 US G) - sufficient for a 12 hour shift**
Hydraulic tank capacity:	**750 L (198 US G)**



EU Stage IV / US Tier 4F :	**Scania DC13 84A 6 cylinder, turbo, 331kW (444hp) at 1600rpm**
Operating conditions:	**Ambient temperature +30°C & –5°C (86ºF & 24ºF) at altitudes up to 1000m (3281ft) above sea level #**
Operating rpm range:	**1600—1800 rpm**
Emission control technique:	**Selective Catalytic Reduction (SCR)**
Reductant tank size:	**60 L (16 US G)**
Plant drive:	**Direct drive**
Fuel tank capacity:	**750 L (198 US G) - sufficient for a 12 hour shift**
Hydraulic tank capacity:	**750 L (198 US G)**



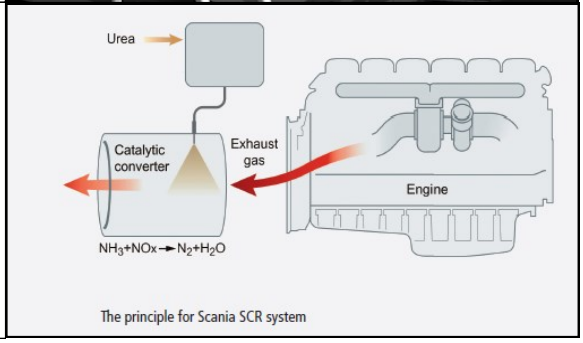
Clutch type:	**Highly efficient, self-adjusting HPTO 12 dry plate clutch with electro hydraulic operation**
Crusher drive:	**Direct drive via wedge belts Clutch pulley diameter 236mm Crusher pulley diameter 1568mm**
Drive tensioning:	**Manual via tensioner wheel**

 # 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

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Crawler Tracks

Type:	Heavy-duty tracks
Pitch:	203mm (8'')
Longitudinal centers:	4170mm (13' 8'')
Track width:	500 mm (19.7'')
Climbing grade:	30˚ maximum
Speed:	0.81kph (0.5mph)
Drive:	Hydraulic motors
Tensioning:	Hydraulic adjuster, grease



Guarding

Composite guards are provided for all drives, flywheels, pulleys & couplings

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

Hinged access guards are provided on the top, side & both ends of the engine

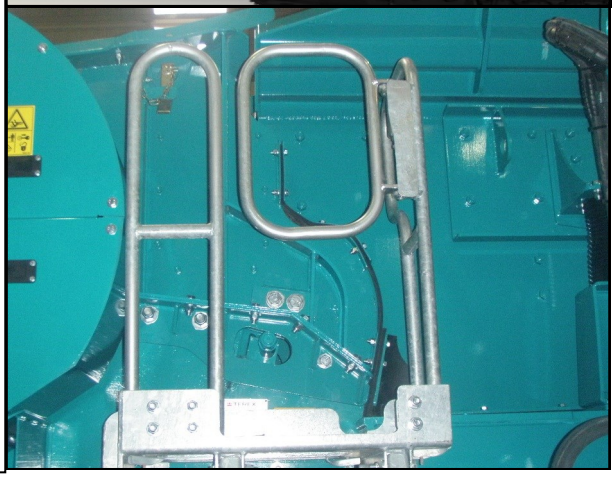


Platforms

A folding access ladder is provided to gain access to each side of the power unit

A maintenance platform is provided on one side of the feeder with double row handrails & access ladders.
A platform is also included to gain access between the crusher & the power unit





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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)**
- **Product conveyor (start/stop & raise/lower)**
- **Feeder (start/stop/speed) controls, located on the side of the plant**

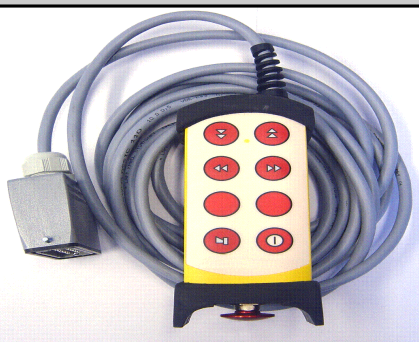




Umbilical Control

An umbilical control unit is also supplied as standard with the plant

Controls tracking function & has a stop button for the plant



Chassis

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



Optional Extras

- **Pre-screen system**
- **Wire mesh for under-screen (standard)**
- **Quarry tooth, pyramid tooth or heavy duty tooth jaw plates**
- **Deflector plate under crusher**
- **Dirt conveyor**
- **Single pole overband magnetic separator**
- **Twin pole overband magnetic separator**
- **Belt weigher**
- **Electric refuelling pump**
- **Electric urea pump**
- **Hydraulic water pump**
- **Radio remote control**
- **Stockpiler drive (Tier 4 machines only)**
- **Powercsreen Pulse**

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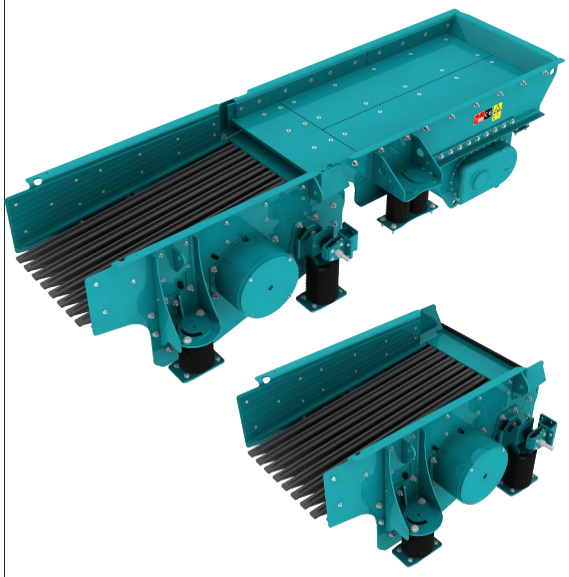
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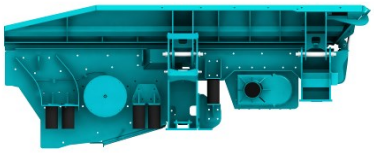
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Pan Feeder & Live Pre-screen

Vibrating pan feeder with double deck live pre-screen

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: 2.39m (7' 10") Width: 1.08m (3' 7")**
Pan:	**15mm thick fully welded base plate with 12mm thick abrasion resistant liners**
Pan:	**Variable speed control though control panel & (radio remote optional)**
Pre-screen:	**Sprung vibrating unit 9mm throw, 1000rpm screen speed**
Vibrating unit:	**Single shaft, out of balance weights, flange mounted hydraulic motor**
Top deck:	**2 piece cartridge with 2.04m (6' 8") long self cleaning fingers 75mm (2") nominal spacing Length: 2m (6' 6") Width: 1.2m (4')**
Bottom deck:	**16º Incline with 40mm (1.5") mesh Length: 1.38m (4' 6") Width: 1.2m (4')**
Chute:	**Bypass chute with internal 5 position flap door fitted, 3 positions for material transfer and 2 positions for maintenance**







Extended Product Conveyor

Discharge Height: 4.6m (15' 1")

Stockpile Volume: 206m3 (268cu. yd.)

Hydraulically folds for transport.



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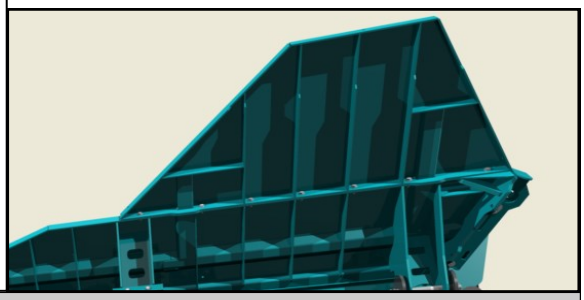
Hopper Extensions

Hopper type: Bolt-on extensions

Hopper length: 4820mm (15' 10")

Hopper width: 4000mm (13' 1")

Hopper body: 15mm wear resistant plate, steel ribs

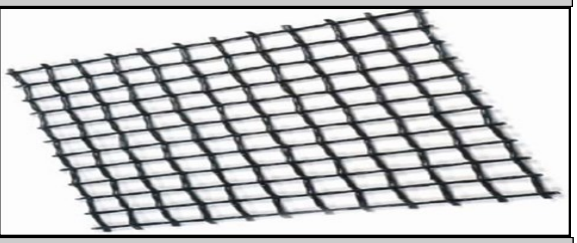


Feeder Under Screen Mesh

Position: Optional aperture meshes fitted in lieu of the standard 40mm mesh.

Width: 1.16m (3' 10'')

Length: 1.38m (4' 6")



Jaw Profiles

All jaw profiles supplied in 18% manganese as standard. This is the proven material for quarry & recycling applications with an initial hardness of around 230BHN (Brinell Hardness)

Super Tooth Jaws (Standard offering)

For extended life across most quarrying applications. Super tooth has a significantly increased wear life using a deeper profile without comprising strength or product shape.

Quarry Tooth Jaws

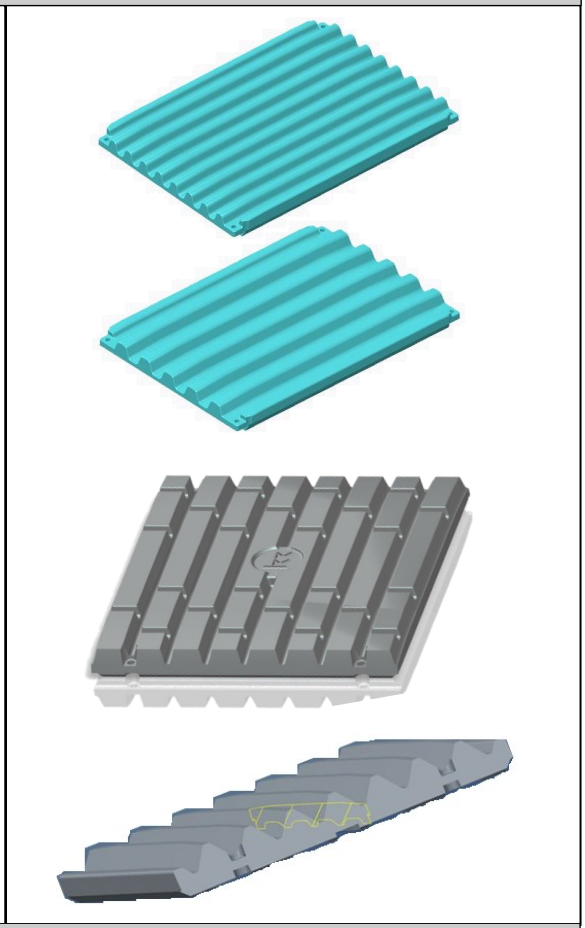
Quarry jaws are suitable for use in medium rock, hard rock and high abrasion applications. Will provide a longer wear life due to the additional material on the teeth of the jaw. (Minimum CSS is 50mm)

Heavy Duty Jaws

New design of HD jaw plate for the fixed jaw. Designed to work with other profiles on the swing jaw. Aimed to bring the wear in line with the swing jaw and reduce the amount of liner changes required.

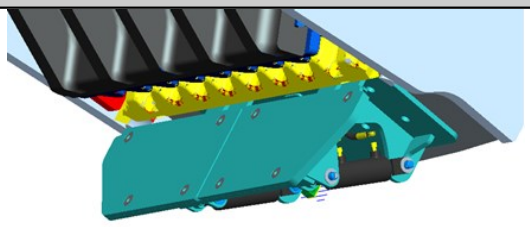
Pyramid Tooth Jaws

Designed as a Jaw for recycling applications or with rock that is difficult to fracture.



Under Crusher Deflector Plate

A hydraulic adjustable deflector plate, increases belt protection on recycling applications. Situated immediately below the crusher outlet point & is fitted with a 15mm thick wear resistant plate. Deflector plate working angle can be adjusted from the PLC control system.



Powerscreen® Premiertrak 600 Options

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Bypass / Side Conveyor

Conveyor type:	**Troughed, modular with hydraulic folding for transport**
Width:	**750mm (29.5”)**
Discharge height:	**3.8m (12’6”)**
Stockpile volume:	**117m^3 (153cu. yd.)**
Drive:	**Direct drive hydraulic motor**



Magnet

Options:	**CP020 single pole (S.P.) TP020 twin pole (T.P.)**
Belt width:	**750mm (30”)**
Centres:	**1700mm (67”)**
Drive / Control:	**Direct drive hydraulic motor, pre-set variable speed**
Discharge:	**RHS via stainless shedder plate**
Weight:	**S.P. 1175kg (2590lbs) T.P. 1700kg (3748lbs)**

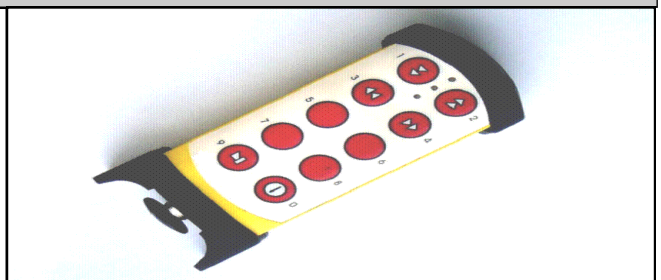


Radio Remote Control

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

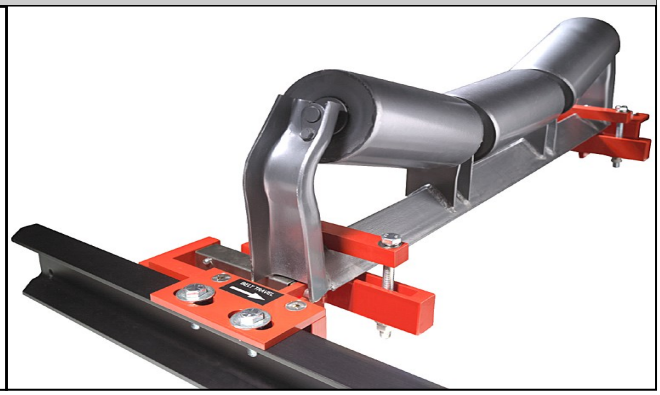
Remote can also be used to:

- **Auto (start/stop)**



Belt Weigher

Type:	**Modular scale with stainless load cells, single idler speed wheel & display unit**
Accuracy:	**± 1.0 + 0.5%**
Load cells:	**2 temperature compensated parallelogram-style, stainless steel**
Display:	**Separate read out near control panel**



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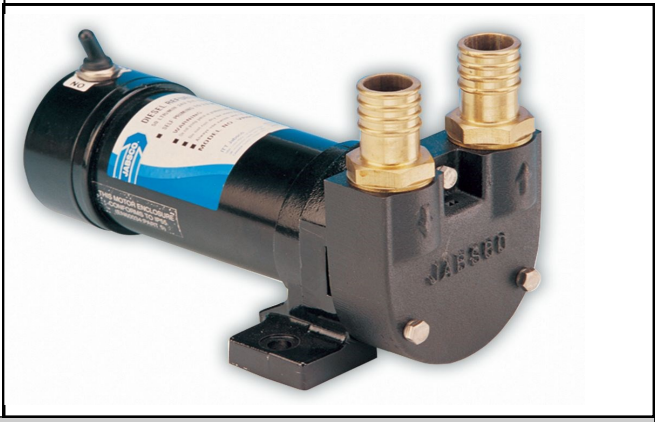
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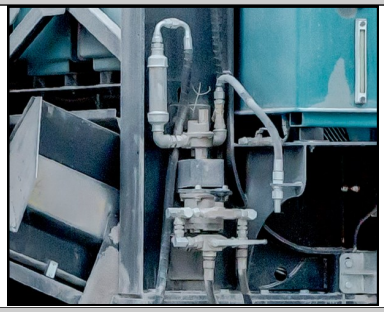
Electric Refuelling Pump

A 24 volt refuelling pump, allows fuel to be drawn from a remote source. Fuel transfer rate is 50 L/min (13 G/min). Includes refuelling hose and end filter



Hydraulic Water Pump

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



Hot/Cold Climate Oils

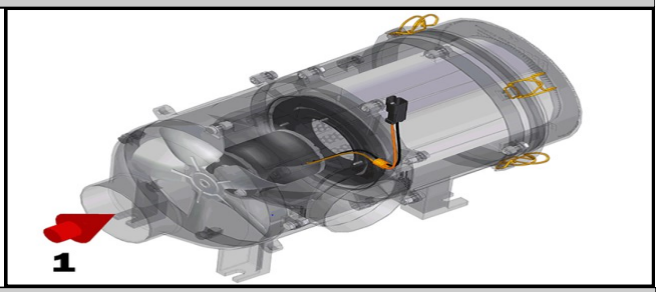
Cold climate oils - (Recommended for ambient temperatures between -20 to +30ºC

Hot climate oils - (Recommended for ambient temperatures between +15 to +50ºC



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.



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.



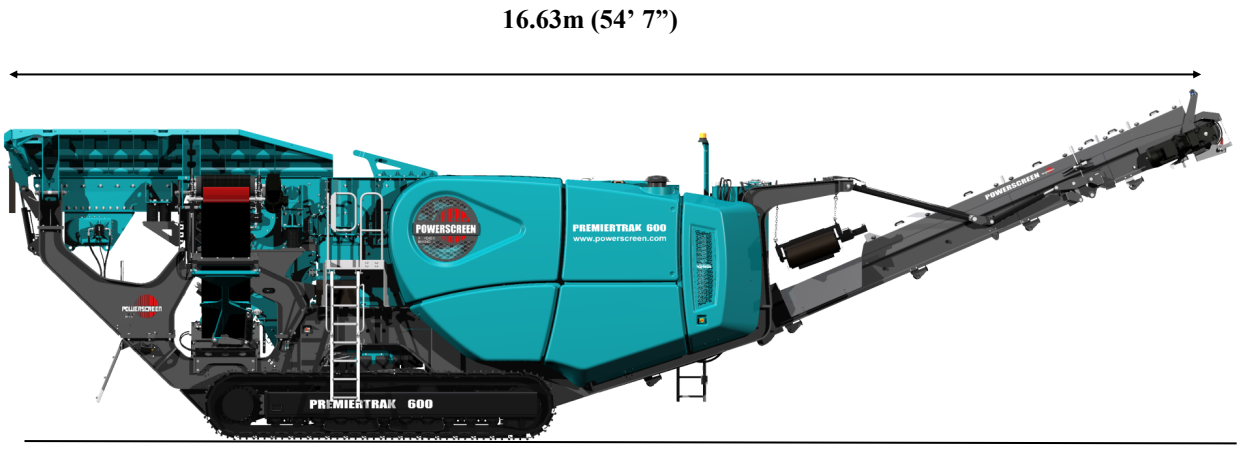
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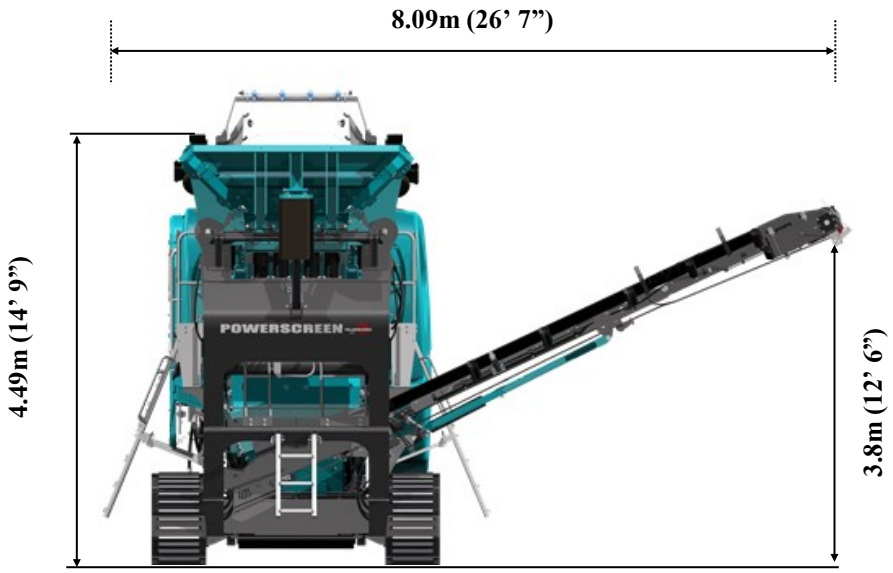
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Working Dimensions

Working length:	**16.63m (54’ 7”)**
Working width:	**8.09m (26’ 7”) with extended dirt conveyor**
Working height:	**4.49m (14’ 9”)**

Premiertrak 600
Working Dimensions





Powerscreen® Premiertrak 600

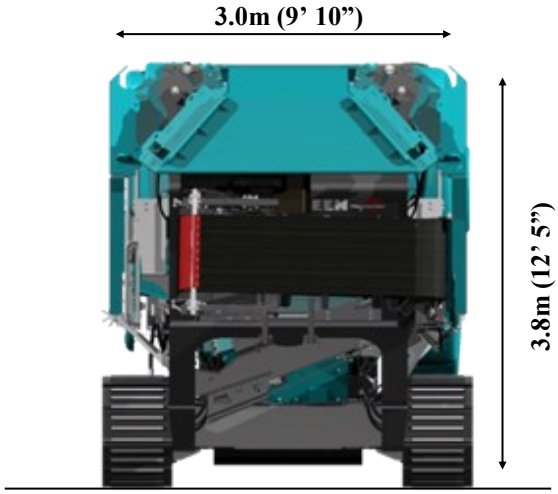
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Transport Dimensions

Transport length: 17.1m (56’ 1”)
Transport width: 3.0m (9’ 10”)
Transport height: 3.8m (12’ 5”)

Premiertrak 600
Transport Dimensions





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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.

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