Powerscreen® Premiertrak 400 & R400

Jaw Crusher

SPECIFICATION - Rev 6. 01/01/2015

POWERSCREEN®
A TEREX BRAND

Powerscreen® Premiertrak 400 & R400

Specification		Premiertrak 400
Total weight		**45,260kg (99,781lbs) including magnet & side conveyor**
Transport	**Length**	**15.2m (49' 10")**
	Width	**2.8m (9' 2"), 4.3m (14' 1") including side conveyor**
	Height	**3.4m (11' 2")**
Working	**Length**	**14.9m (49' 10")**
	Width	**4.3m (14' 1") with side conveyor**
	Height	**4.1m (13' 6")**
Crusher type:		**Single toggle jaw, feed opening 1100mm x 700mm (44"x28")**
Power unit:		**Caterpillar C9 ACERT 194kW (260hp)/Scania DC9 080A 202kW (275hp)**
Paint colour:		**Blue RAL 5021, Grey RAL 7024, Black RAL 9005**

Features & Benefits

The Powerscreen® Premiertrak 400 range of high performance primary jaw crushing plants are designed for medium scale operators in quarrying, demolition, recycling & mining applications.

The range includes the Premiertrak 400 with hydraulic adjust & the Premiertrak R400 with hydraulic release. User benefits include track mobility for a quick set-up time, hydraulic crusher setting adjustment for total control of product size & crusher overload protection to prevent damage by un-crushable objects.

- **Output potential up to 400tph (440 US tph)**
- **Hydraulic folding feed hopper with wedge fixing system**
- **Heavy duty wear resistant feed hopper**
- **Stepped self-cleaning grizzly feeder with under feeder screen option**
- **Deep fines chute to reduce material blockages**
- **Aggressive crushing action with high swing jaw encouraging material entry into crushing chamber**
- **Hydraulic crusher setting adjustment**
- **Improved manganese liner retention, protects jaw supports on both swing & fixed jaws**
- **Excellent under crusher access for removal of wire with hydraulic raise lower product conveyor**
- **Angle adjustable product conveyor, 3.9m discharge height, lowers for transport**
- **Low fuel consumption due to highly efficient direct drive system**
- **Easy access power unit canopy**
- **PLC control system with auto start facility**
- **Remote control via umbilical**
- **Dust suppression system**
- **Easily set up**

Aggregate

- **Sand & gravel**
- **Blasted rock**
- **River rock**

Recycling

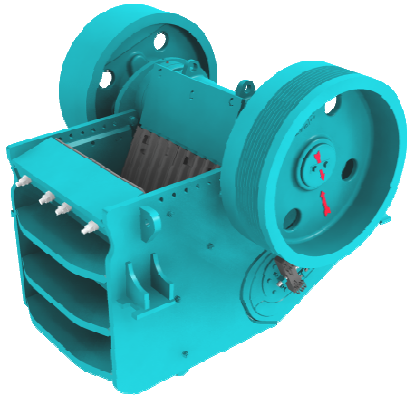
- **C&D waste**
- **Overburden**
- **Foundry waste**

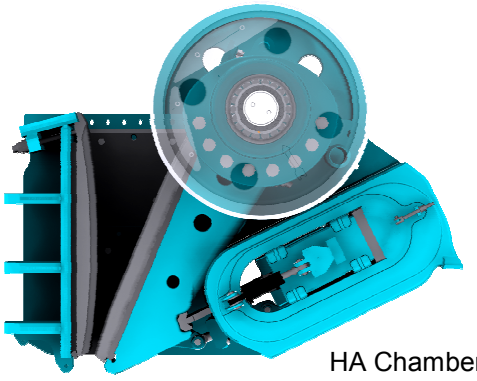
Mining

- **Processed ores**
- **Processed minerals**

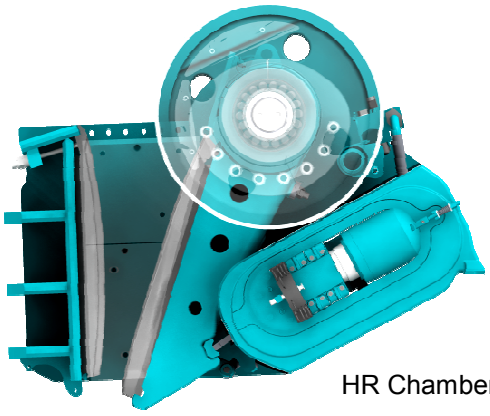
Jaw Crusher

Crusher type:	**Single toggle Jaw with hydraulic setting adjustment**
Feed opening:	**1100mm x 700mm (44” x 28”)**
Bearings:	**Self aligning spherical roller**
Lubrication:	**Grease**
Drive:	**V belts with screw tension adjustment on engine**
Pre-set:	**75mm (3”) closed side setting (CSS)**
Minimum setting:	**50mm (2”) CSS recycling 75 mm (3”) CSS quarry 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 390kN 10% Fines, 240MPa Compressive Strength as per other M-Series Jaws If in doubt please contact your dealer or Powerscreen**
Maximum setting:	**150mm (6”) CSS standard jaws**
Hydraulic adjustment:	**Hydraulically adjusted C.S.S set by placing equal small shims into each side of the crusher**





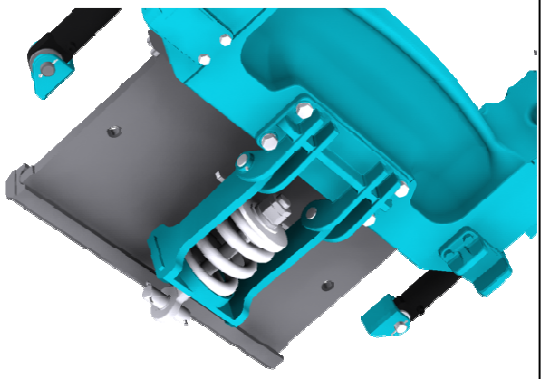
HA Chamber



HR Chamber

Chamber Features

- **Quick & easy setting adjustment**
- **Drawback rod adjustments not required during setting changes**
- **Jawstock supported on both sides, even stress distribution**
- **Strong frame construction, no welding in critical areas**
- **Cylinders mounted in line with side plates**
- **Cartridge type bearings**
- **Overlap jaw protects tip of jawstock / pitman**
- **One piece fixed jaw support**
- **Proven manganese liner retention**



Powerscreen® Premiertrak 400 & R400

Hopper

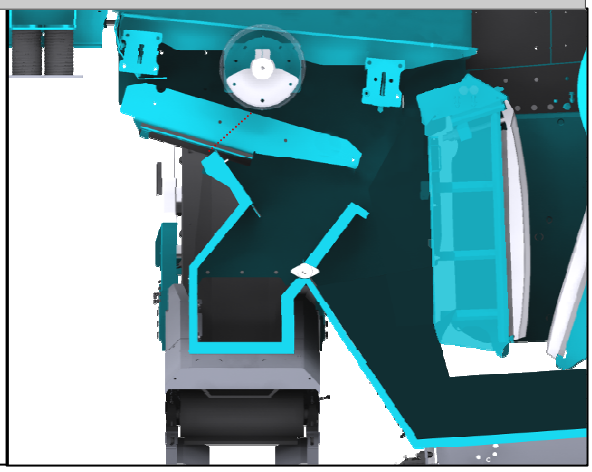
Hopper type:	Boltless hydraulic folding hopper, over centre struts & wedge lock
Hopper length:	4.9m (16' 1")
Hopper width:	2.4m (7' 11")
Hopper capacity:	10m^3 (13 cu. yd.)
Hopper body:	15mm thick wear resistant steel plate, mild steel reinforcing ribs
Control:	Variable speed control through a proportional flow control valve

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
Feeder length:	4.08m (13' 5")
Feeder width:	1.06m (3' 6")
Grizzly:	2 replaceable 1.6m long stepped cartridge type grizzlies 50mm nominal aperture, self cleaning
Grizzly length:	2.12m (7')
Under-screen:	Rubber blanking mat fitted as standard. Can be substituted for optional wire meshes, use in conjunction with optional side conveyor.

Plant Chute-work

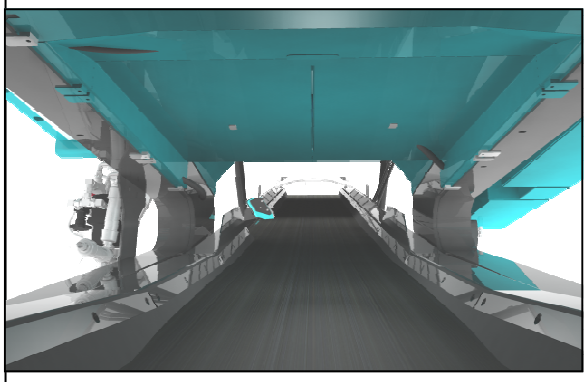
Crusher feed chute:	One piece fabrication with 12mm thick mild steel plate sides with 20mm thick bottom plate
Grizzly fines/ bypass chute:	2 Way dirt chute provided to discharge to product conveyor or optional side conveyor when fitted. Fabricated from 6mm mild steel, complete with hand operated flap door to direct grizzly fines to either side conveyor or product conveyor.



Powerscreen® Premiertrak 400 & R400

Product Conveyor

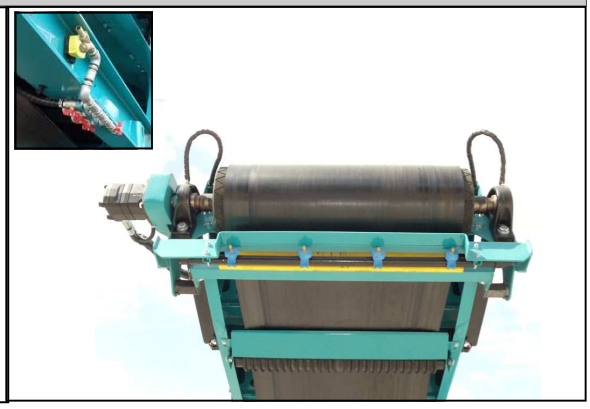
Conveyor type:	**Troughed belt conveyor**
Design:	**Hydraulic raise & lower facility to aid rebar removal & transportation. Can be raised or lowered whilst crushing. Fully removable modular unit to aid access & maintenance**
Belt type:	**EP630/4 with 6mm top & 2mm bottom cover, vulcanised**
Belt width:	**1000mm (39")**
Discharge height:	**3.9m (12' 9")**
Stockpile volume:	**89m^3 (116 cu. yd.)**
Max. clearance:	**472mm (jaw to belt - lowered) 747mm (engine to belt - lowered)**
Drive:	**Direct drive hydraulic motor**
Tunnel:	**Conveyor fitted with tunnel & side covers to minimise rebar snagging**
Feedboot:	**Mild steel plate with abrasion resistant steel liners at feed point**
Belt adjustment:	**Screw adjusters at head drum**
Belt covers:	**Canvas type removable dust covers fitted to head section beyond magnet**
Belt scraper:	**SCS high performance scraper as standard**
Lubrication:	**Remote head drum grease points located under shedder plate**
Skirting:	**Wear resistant rubber skirts along**



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**



Power Uunit

EU Stage IIIA / US Tier 3:	**Caterpillar C9 ACERT, 6 cylinder, direct injection 194kW (260hp) at 1600rpm ***
Operating conditions:	**Ambient temp. +40°C & –12°C (104F & 10F) altitudes up to 1000m (3281ft) above sea level #**
Operating rpm range:	**1600rpm**
Typical fuel consumption:	**N/A**
Plant drive:	**High quality pumps driven via belts**
Fuel tank capacity:	**410 L (108 US G) - sufficient for a 12 hour shift**
Hydraulic tank capacity:	**340 L (116 US G)**

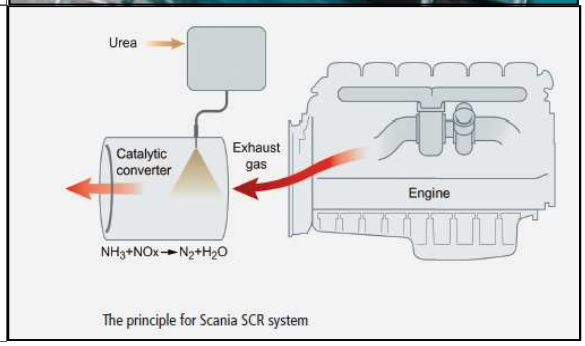
Tier 4F / Stage IV:	**Scania DC9 84A 5 cylinder, turbo, 202kW (275hp) at 1600rpm**
Operating conditions:	**Ambient temperature +40°C & –12°C (104F & 10F) at altitudes up to 1000m (3281ft) above sea level #**
Operating rpm range:	**1600rpm**
Typical fuel consumption:	**N/A**
Emission control technique:	**Selective Catalytic Reduction (SCR)**
Reductant tank size:	**60 L (16 US G)**
Plant drive:	**High quality pumps driven via engine PTO's**
Fuel tank capacity:	**450 L (119 US G) - sufficient for a 12 hour shift**

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 212mm (8.3") Crusher pulley diameter 1260mm (4' 2")**
Drive tensioning:	**Manual screw tensioners located beside power unit**

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

Scania Stage IV / Tier 4 Final Technology

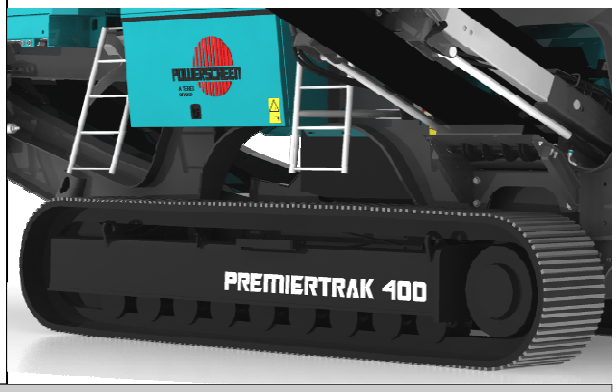
Scania industrial engines meet the requirements of Stage IV and Tier 4 Final without the need for a particulate filter. With only EGR and SCR technology, the installation will be unaffected. Scania-developed systems for engine management and emission control ensure an attractive blend of performance 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

Crawler Tracks

Type:	**Heavy-duty tracks**
Pitch:	**190mm**
Longitudinal centers:	**3715mm**
Track width:	**500 mm**
Climbing grade:	**25˚ maximum**
Speed:	**0.9kph (0.56mph)**
Drive:	**Hydraulic motors**
Tensioning:	**Hydraulic adjuster, grease tensioner**



Guarding

Wire mesh or sheet metal 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 detachable access ladder is provided to gain access to each side of the power unit (Tier 4 variant only)

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.

EU Stage IIIA / US Tier 3 only

Plant Controls

Full PLC control panel

Full system diagnostics

Controls fitted to the plant include:

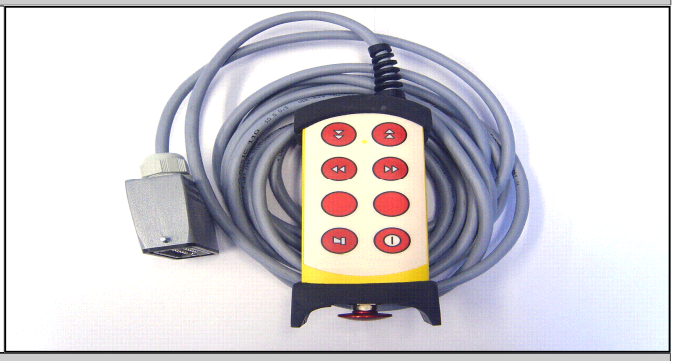
Sequential start up

- **Engine (start/stop/speed)**
- **Crusher (start/stop)**
- **Optional side conveyor (start/stop)**
- **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

- **Extended hopper**
- **Wire mesh for underscreen**
- **Super tooth or multi tooth jaw plates**
- **Deflector plate under crusher**
- **Side conveyor**
- **Magnet prepared**

- **Single pole overband magnetic separator**
- **Twin pole overband magnetic separator**
- **Belt weigher**
- **Electric refuelling pump**
- **Hydraulic water pump**
- **Radio remote control**

(For pricing please refer to your local dealer)

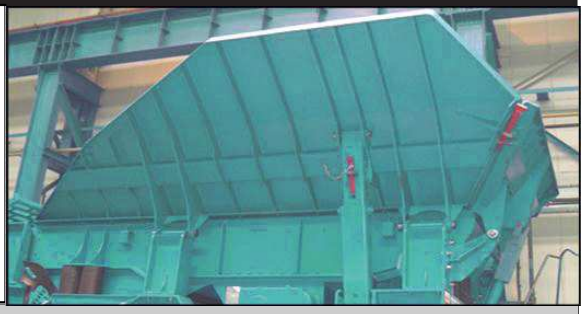
Hopper Extensions

Hopper type: Hydraulic folding extended hopper with over centre struts & wedge-lock system

Hopper length: 4915mm (16' 1")

Hopper width: 3815mm (12' 6")

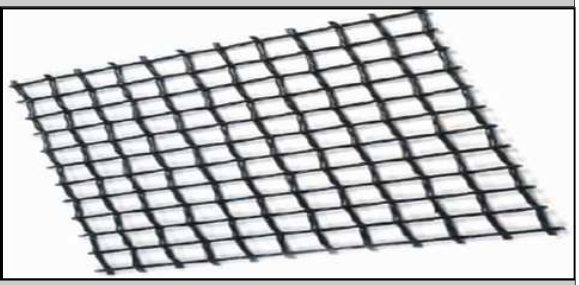
Hopper body: 15mm wear resistant plate, steel ribs



Feeder Underscreen Mesh

Position: Removable wire meshes fitted in lieu of the standard rubber blanking mat, use in conjunction with optional side conveyor

Width: 1075mm (3' 6")
Length: 1250mm (4' 1")

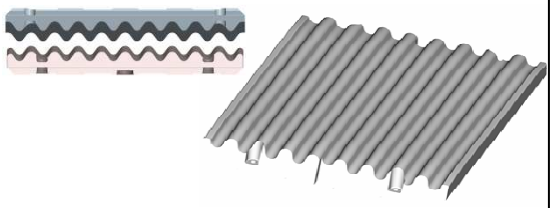


Jaw Profiles

A choice of jaw profiles are available to maximise performance across all applications. 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)

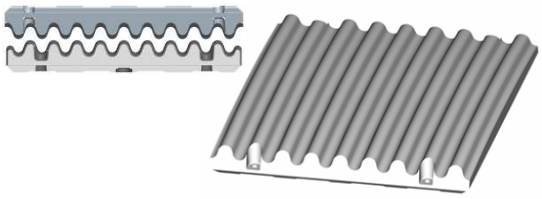
Premium Jaws (Standard offering)

Premium jaws are fitted as standard in all Premiertrak 400 and R400 jaw crushers. They are suitable for most quarry & recycling applications & give an excellent cost per tonne crusher



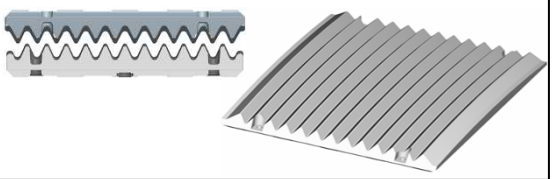
Super Tooth Jaws

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



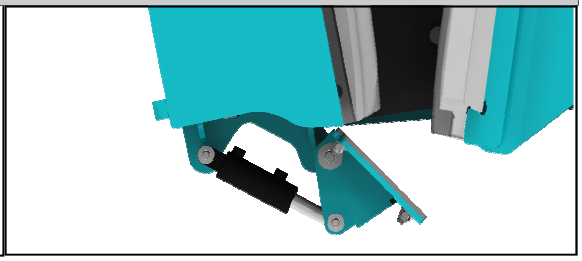
Multi Tooth Jaws

The industry choice for many recycling applications. The "sharper" profile makes the Multi tooth ideal for most recycling applications, particularly those involving concrete. It is also more tolerant when recycling asphalt. Wear life will be reduced on abrasive applications



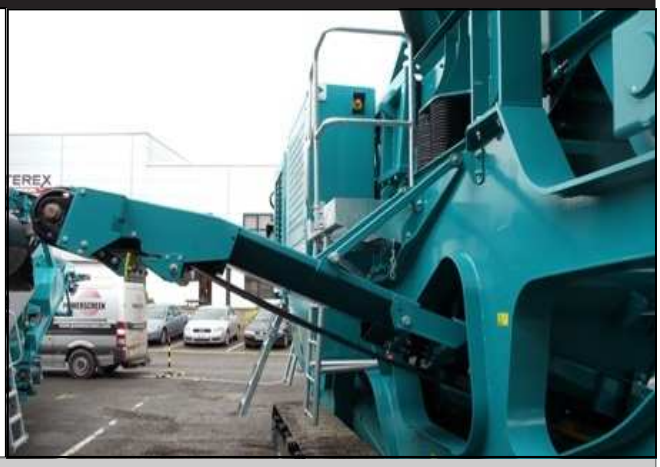
Under Crusher Deflector Plate

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



Side Conveyor

Conveyor type:	**Troughed belt conveyor, folds hydraulically for transport**
Width:	**600mm (23.6")**
Discharge height:	**2.0m (6'5")**
Stockpile volume:	**12m^3 (16 cu. yd.)**
Drive:	**Direct drive hydraulic motor**
Position:	**Discharge on RHS of plant**



Magnet

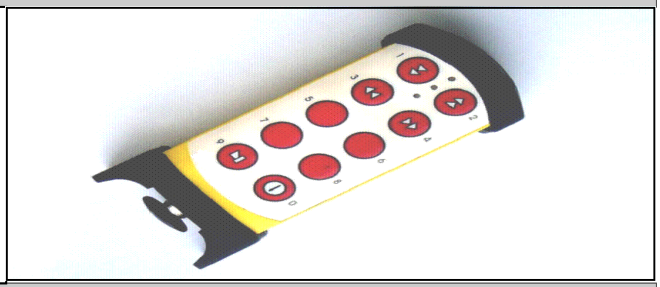
Options:	**Magnet prepared Terex CP020—100 single pole (S.P.) Terex TP020—100 twin pole (T.P.)**
Belt width:	**750mm (30")**
Centres:	**1700mm (67")**
Drive / Control:	**Direct drive hydraulic motor, pre-set variable speed**
Discharge:	**LHS via stainless shedder plate**
Weight:	**S.P. 975kg (2150lbs) T.P. 1470kg (3240lbs)**

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:

- **Feeder (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**

Hot/Cold Climate Oils

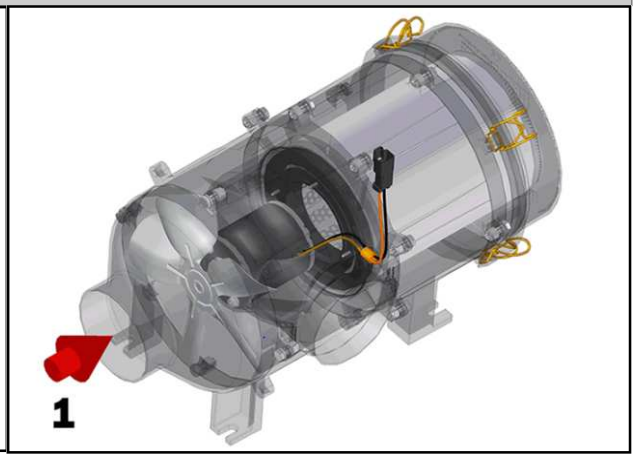
Cold climate oils - (Recommended for ambient temperatures between -20 to +30oC

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

Contrtol Panel Positive Pressurisation

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

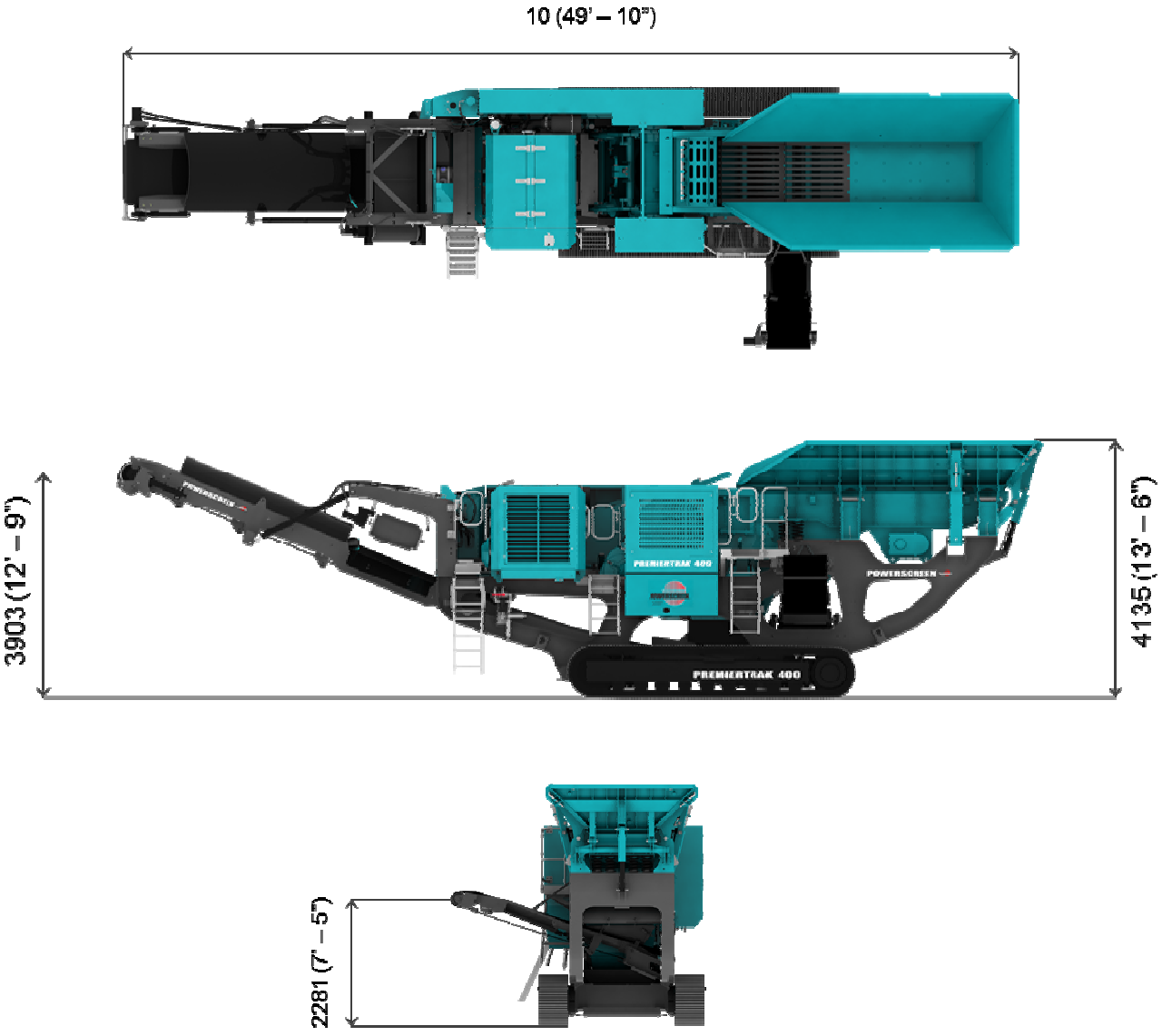
A continuous flow of clean air is passed through the cabinet whilst the unit simultaneously filters out any particulate laden air.



Approximate Plant Weight & Dimensions

Working length:	**14.96m**	**(49' 0")**
Working height:	**4.13m**	**(13' 6")**
Working width:	**2.8m**	**(9' 2")**
	4.3m	**(14' 1") including side conveyor**

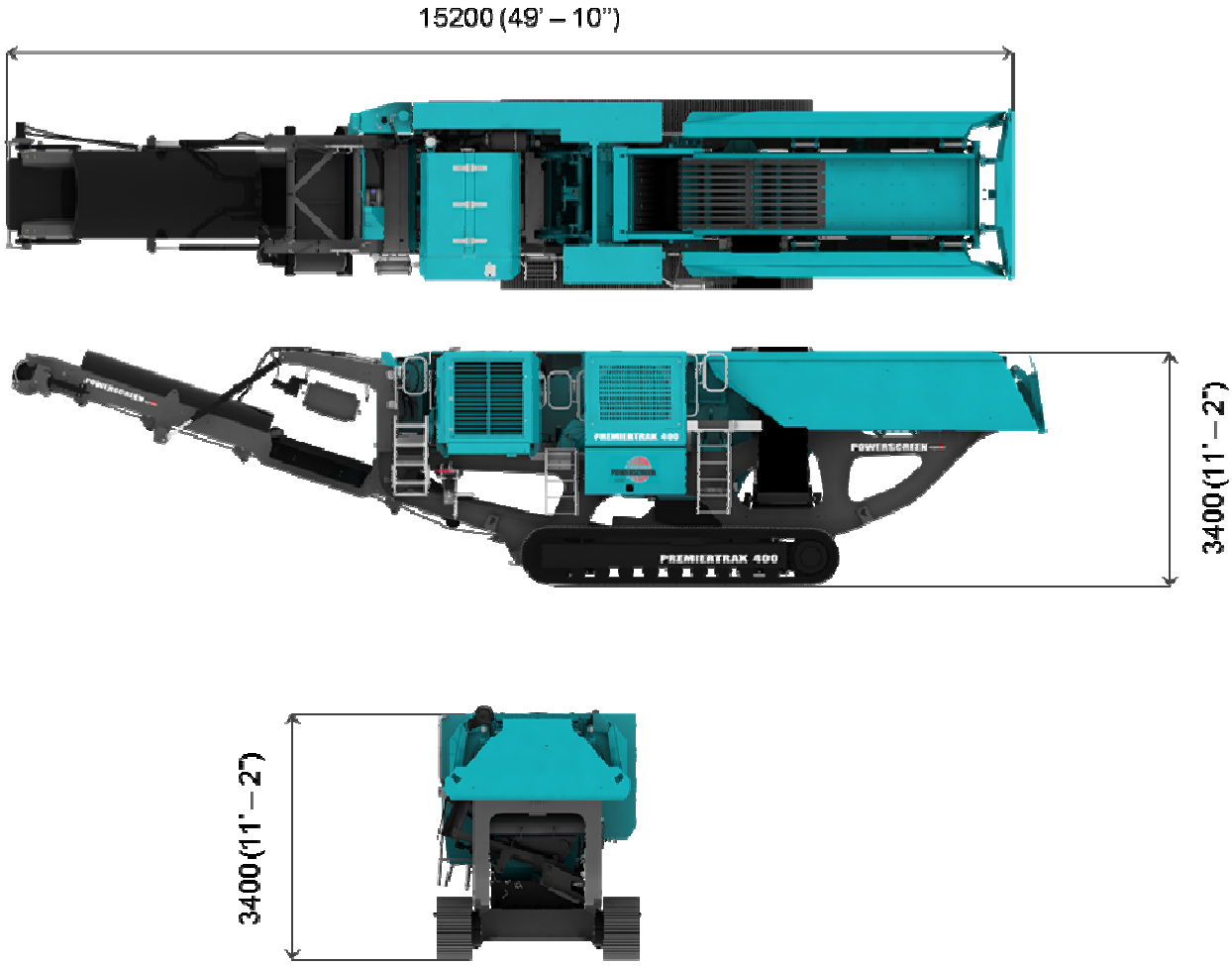
Premiertrak 400 & R400
Working Dimensions



Approximate Plant Weight & Dimensions

Transport length:	**15.2m**	**(49' 10")**
Transport width:	**2.8m**	**(9' 2")**
Transport height:	**3.4m**	**(11' 2")**
Total plant weight:	**45,260kg**	**(99,781lbs) including magnet & side conveyor**

Premiertrak 400 & R400
Transport Dimensions



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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