

Joe

**Michael Baker**  
INTERNATIONAL

*We Make a Difference*

April 8, 2015

Mr. William F. Durham  
Division of Air Quality, Director  
601 57th Street, SE  
Charleston, WV 25304  
304-926-0499, EXT 1695  
Via: FedEx



**Re: Permit Determination: G40 Exemption of Concrete Crushing Operations  
SABIC Innovative Plastics US LLC; Washington, WV**

Dear Mr. Durham:

On behalf of SABIC Innovative Plastics US LLC (SABIC), Michael Baker Jr., Inc. (Baker) is pleased to provide the West Virginia Department of Environmental Protection (WVDEP) with this Permit Determination to exempt Concrete Crushing Operations from General Permit 40.

As part of its facility decommissioning process, SABIC plans to crush concrete. Emissions from this temporary two-month operation will be well below the permitting thresholds of 6 lb/hr and 10 tpy (see attached Emission Calculations). In addition, even though this operation will utilize a crusher, 40 CFR 60 Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants) will not apply to the operation as the operation will process concrete well under the 150 ton/hour threshold as provided in 40 CFR 60.670(c)(2).

Please note that while the rated capacity listed on the enclosed specification sheet of the proposed concrete crusher (Powerscreen Premiertrak 400) indicates "Output potential up to 440 US tph", this rating system is associated with processing of finer materials such as topsoil. Through extensive user experience with this piece of equipment, SABIC's demolition contractor (NADC) is certain that the output potential cannot exceed 60 tph of concrete during this application.

Demolition is scheduled to begin on May 18, 2015. We look forward to working with WVDEP throughout this closure process.

Should you have any questions, please contact me at 412-375-3064 or [mmyers@mbakerintl.com](mailto:mmyers@mbakerintl.com).

Sincerely,  
MICHAEL BAKER JR., INC.

Matthew J. Myers, CHMM, QEP  
Project Manager

**ENCLOSURES:**

Emission Calculations  
Manufacturer Specification of Concrete Crusher

**cc Via Email:**

WVDEP: Robert Keatley, William Durham  
SABIC: John P. Garner, Haila Buskirk, & Scott Dansey  
NADC: Steve Johnson

## Concrete Crushing Emission Calculations

### Potential (Worst Case) Schedule of Concrete Crushing Operations:

Start:	10/1/2015
End:	11/30/2015
Weeks	9
Days/week	5
Hours/day	10
Potential Hours	450
% of 8760 annual potential hours	5%

### Maximum Material Processing

MAX THRUPUT	
Tons Concrete/Hour	60
Total Tons	27,000

*(expected 75% of max = 45 tons/hr)*

*Based on capacity of: Powerscreen Premiertrak 400*

Emission Factors	lb/ton of material throughput		Source
	PM	PM10	
Primary Crushing	0.002	0.001	WVDEP G40 Calculations
Screening	0.025	0.0087	AP-42, Table 11.19.2-2 (August 2004).

### Emission Calculations:

Pollutant:	PM	PM10	G40 Permit PM Threshold <sup>(1)</sup>	% of Threshold
<b>Primary Crushing</b>				
lb/hr	0.12	0.06	6	2%
tpy	0.03	0.01	10	0.3%
<b>Screening:</b>				
lb/hr	1.50	0.52	6	25%
tpy	0.34	0.12	10	3.4%

1. WVDEP regulates operations via a General Permit if any criteria pollutant exceeds 6 lbs/hr and 10 tpy.

### Applicability Analysis:

#### Subpart 000—Standards of Performance for Nonmetallic Mineral Processing Plants

Not applicable to Subpart 000 because of exemption provided in 40 CFR 60.670(c)(2):

"(c) Facilities at the following plants are not subject to the provisions of this subpart:...

.....2) **Portable** sand and gravel plants and **crushed stone** plants with capacities, as defined in §60.671, of 136 megagrams per hour (150 tons per hour) or less."

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# Powerscreen® Premiertrak 400 Jaw Crusher

SPECIFICATION - Rev 6. 01/12/2013



# Powerscreen® Premiertrak 400

SPECIFICATION Rev 6. 01/12/2013

<b>Specification</b>		<b>Premiertrak 400</b>
<b>Total weight</b>		<b>44,450kg (97,995lbs) including magnet &amp; dirt conveyor</b>
<b>Transport</b>	<b>Length</b>	<b>15.2m (49' 10")</b>
	<b>Width</b>	<b>2.8m (9' 2"), 4.3m (14' 1") including dirt conveyor</b>
	<b>Height</b>	<b>3.4m (11' 2")</b>
<b>Working</b>	<b>Length</b>	<b>14.9m (49' 10")</b>
	<b>Width</b>	<b>4.3m (14' 1") with dirt conveyor</b>
	<b>Height</b>	<b>4.1m (13' 6")</b>
<b>Crusher type:</b>		<b>Single toggle jaw, feed opening 1100mm x 700mm (44"x28")</b>
<b>Powerunit:</b>		<b>Caterpillar C9 ACERT 194kW (260hp) or Scania DC9 080A 202kW (275hp)</b>
<b>Paint colour:</b>		<b>RAL 5021</b>

## 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
- Stopped 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 powerunit 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

All specifications subject to change without prior notice

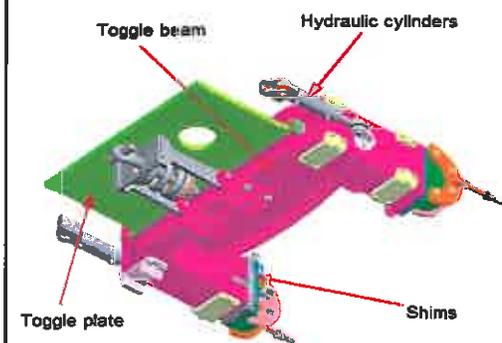


# Powerscreen® Premiertrak 400

SPECIFICATION Rev 6. 01/12/2013

## Jaw Crusher

<b>Crusher type:</b>	<b>Single toggle Jaw with hydraulic setting adjustment</b>
<b>Feed opening:</b>	<b>1100mm x 700mm (44" x 28")</b>
<b>Bearings:</b>	<b>Self aligning spherical roller</b>
<b>Lubrication:</b>	<b>Grease</b>
<b>Drive:</b>	<b>V belts with screw tension adjustment on engine</b>
<b>Pre-set:</b>	<b>75mm (3") closed side setting (CSS)</b>
<b>Minimum setting:</b>	<b>50mm (2") CSS recycling 75 mm (3") CSS quarry</b>
	<b>All setting measured from root to tip &amp; subject to suitability of feed material. This plant has been designed for both quarry &amp; recycling applications where appropriate</b>
	<b>For maximum material strength of 390kN 10% Fines, 240MPa Compressive Strength as per other M-Series Jaws</b>
	<b>If in doubt please contact your dealer or Powerscreen</b>
<b>Maximum setting:</b>	<b>150mm (6") CSS standard jaws</b>
<b>Hydraulic adjustment:</b>	<b>Hydraulically adjusted C.S.S set by placing equal small shims into each side of the crusher</b>



## 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

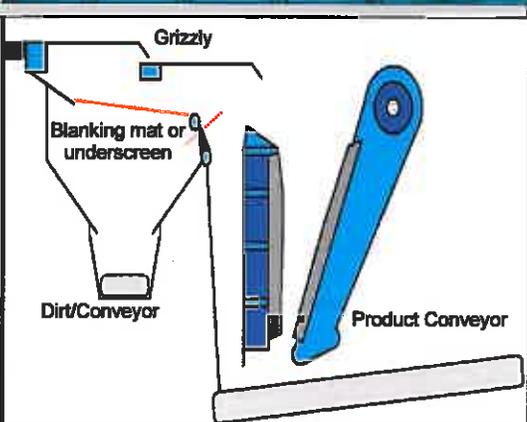


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# Powerscreen® Premiertrak 400

SPECIFICATION Rev 6. 01/12/2013

<p><b>Hopper</b></p> <p><b>Hopper type:</b> Boltless hydraulic folding hopper, over centre struts &amp; wedge lock</p> <p><b>Hopper length:</b> 4.9m (16' 1")</p> <p><b>Hopper width:</b> 2.4m (7' 11")</p> <p><b>Hopper capacity:</b> 10m<sup>3</sup> (13 cu. yd.)</p> <p><b>Hopper body:</b> 15mm thick wear resistant steel plate, mild steel reinforcing ribs</p> <p><b>Control:</b> Variable speed control through a proportional flow control valve</p>	
<p><b>Vibrating Grizzly Feeder</b></p> <p><b>Type:</b> Spring mounted vibrating pan &amp; grizzly feeder</p> <p><b>Vibrating Unit:</b> Twin heavy-duty cast eccentric shafts running in spherical roller bearings, gear coupled at drive end</p> <p><b>Drive:</b> Flange mounted hydraulic motor</p> <p><b>Feeder length:</b> 4.08m (13' 5")</p> <p><b>Feeder width:</b> 1.08m (3' 6")</p> <p><b>Grizzly:</b> 2 replaceable 1.60m long stepped cartridge type grizzlies 50mm nominal aperture, self cleaning</p> <p><b>Grizzly length:</b> 2.12m (7')</p> <p><b>Under-screen:</b> Rubber blanking mat fitted as standard. Can be substituted for optional wire meshes, use in conjunction with optional side conveyor</p>	
<p><b>Plant Chute-work</b></p> <p><b>Crusher feed chute:</b> One piece fabrication with 12mm thick mild steel plate sides with 20mm thick bottom plate</p> <p><b>Grizzly fines/ bypass chute:</b> 2-way dirt chute provided to discharge to product conveyor or optional dirt conveyor when fitted. Fabricated from 6mm mild steel, complete with hand operated flap door to direct grizzly fines to either dirt conveyor or product conveyor</p>	

All specifications subject to change without prior notice



# Powerscreen® Premiertrak 400

SPECIFICATION Rev 6. 01/12/2013

<p><b>Product Conveyor</b></p> <p><b>Conveyor type:</b> Troughed belt conveyor</p> <p><b>Design:</b> Hydraulic raise &amp; lower facility to aid rebar removal &amp; transportation. Can be raised or lowered whilst crushing. Fully removable modular unit to aid access &amp; maintenance</p> <p><b>Belt type:</b> EP630/4 with 6mm top &amp; 2mm bottom cover, vulcanised</p> <p><b>Belt width:</b> 1000mm (39")</p> <p><b>Discharge height:</b> 3.9m (12' 9")</p> <p><b>Stockpile volume:</b> 89m<sup>3</sup> (116 cu. yd.)</p> <p><b>Max. clearance:</b> 472mm (jaw to belt - lowered) 747mm (engine to belt - lowered)</p> <p><b>Drive:</b> Direct drive hydraulic motor</p> <p><b>Tunnel:</b> Conveyor fitted with tunnel &amp; side covers to minimise rebar snagging</p> <p><b>Feedboot:</b> Mild steel plate with abrasion resistant steel liners at feed point</p> <p><b>Belt adjustment:</b> Screw adjusters at head drum</p> <p><b>Belt covers:</b> Canvas type removable dust covers fitted to head section beyond magnet</p> <p><b>Belt scraper:</b> Polyurethane blades as standard</p> <p><b>Lubrication:</b> Remote head drum grease points located under shedder plate</p> <p><b>Skirting:</b> Wear resistant rubber skirts along entire conveyor length</p>	  
<p><b>Dust Suppression System</b></p> <p>Sprays bars with atomiser nozzles mounted over crusher mouth, product conveyor feed &amp; discharge points. Piped to an inlet manifold for client's pressured water supply</p> <p><b>Type:</b> Clean water multi atomising nozzles</p> <p><b>Inlet:</b> Single filtered inlet point on chassis</p> <p><b>Pressure:</b> 2.8 bar (42 psi)</p> <p><b>Frost protection:</b> Via system drain valves</p> <p><b>Pump:</b> Optional extra</p>	

All specifications subject to change without prior notice



# Powerscreen® Premiertrak 400

SPECIFICATION Rev 6. 01/12/2013

## Powerunit

**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)



**EU Stage IIIB / US Tier 4i:** Scania DC9 080A 5 cylinder, turbo, 202kW (275hp) at 2100rpm

**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

**Hydraulic tank capacity:** 445 L (117 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 212mm (8.3") Crusher pulley diameter 1260mm (4' 2")

**Drive tensioning:** Manual screw tensioners located beside powerunit

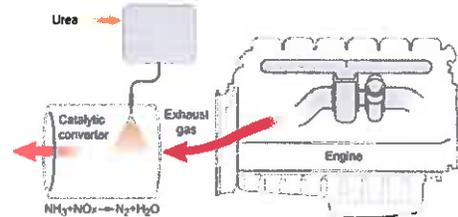


# For applications outside this range please consult with Powerscreen as the plant performance / reliability may be affected

## Selective Catalytic Reduction (SCR)

SCR technology is used for Stage IIIB & Tier 4i to reduce the NOX content in the exhaust gases. A chemical process is started by injecting reductant, a urea & water mixture, into the exhaust gas stream. During injection the water evaporates & the urea breaks down to form ammonia. The ammonia then reacts with the nitrogen gases in the catalytic converter & forms harmless products such as nitrogen gas & water

Through the use of SCR the exhaust gases are purged of poisonous levels of NOX in the best possible way. The reductant tank holds 60 litres & is heated by the engine's cooling system in order to avoid freezing of the urea solution, urea freezes at -11°C



The principle for Scania SCR system

All specifications subject to change without prior notice



# Powerscreen® Premiertrak 400

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## 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 powerunit

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 powerunit



EU Stage IIIA / US Tier 3 only

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# Powerscreen® Premiertrak 400

SPECIFICATION Rev 6. 01/12/2013

## Plant Controls

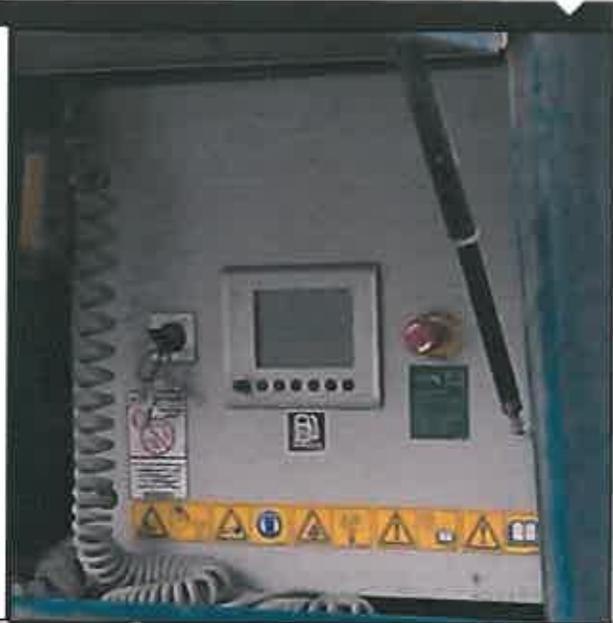
Full PLC control panel

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

- Extended hopper
- Wire mesh for underscreen
- Super tooth or multi tooth jaw plates
- Deflector plate under crusher
- Dirt 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)

All specifications subject to change without prior notice



# Premiertrak 400 Options

SPECIFICATION - Rev 6. 01/12/2013

## 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

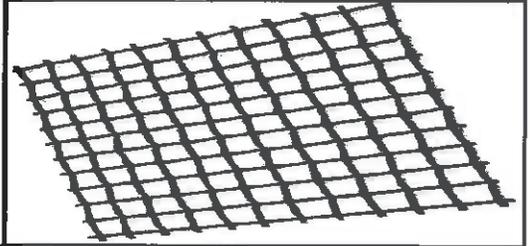


## Feeder Under Screen Mesh

**Position:** Removable wire meshes fitted in lieu of the standard rubber blanking mat, use in conjunction with optional dirt 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)

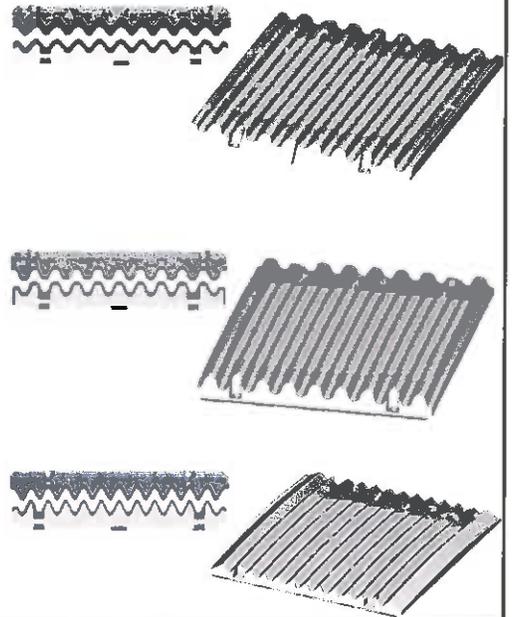
Premium jaws are fitted as standard in all Premiertrak R400 jaw crushers. They are suitable for most quarry & recycling applications & give an excellent cost per tonne crusher

### 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

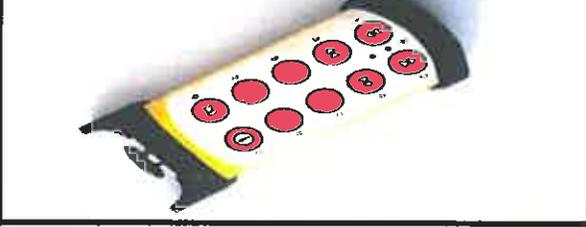


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# Premiertrak 400 Options

SPECIFICATION - Rev 6. 01/12/2013

<p><b>Dirt Conveyor</b></p> <p><b>Conveyor type:</b> Troughed belt conveyor, folds hydraulically for transport</p> <p><b>Width:</b> 600mm (23.6")</p> <p><b>Discharge height:</b> 2.0m (6'5")</p> <p><b>Stockpile volume:</b> 12m<sup>3</sup> (16 cu. yd.)</p> <p><b>Drive:</b> Direct drive hydraulic motor</p> <p><b>Position:</b> Discharge on RHS of plant</p>	
<p><b>Magnet Options:</b> Magnet prepared Terex TX440 single pole (S.P.) Terex TX440X twin pole (T.P.)</p> <p><b>Belt width:</b> 750mm (30") <b>Centres:</b> 1700mm (67")</p> <p><b>Drive / Control:</b> Direct drive hydraulic motor, pre-set variable speed</p> <p><b>Discharge:</b> LHS via stainless shedder plate</p> <p><b>Weight:</b> S.P. 975kg (2150lbs) T.P. 1470kg (3240lbs)</p>	
<p><b>Radio Remote Control</b></p> <p>Complete with integrated tracking functions &amp; plant stop button. NB - Only available in certain countries where type approval has been obtained</p> <p>Remote can also be used to:</p> <ul style="list-style-type: none"> <li>▪ Feeder (start/stop)</li> </ul>	
<p><b>Belt Weigher</b></p> <p><b>Type:</b> Modular scale with stainless load cells, single idler speed wheel &amp; display unit</p> <p><b>Accuracy:</b> ± 1.0 + 0.5%</p> <p><b>Load cells:</b> 2 temperature compensated parallelogram-style, stainless steel</p> <p><b>Display:</b> Separate read out near control panel</p>	

All specifications subject to change without prior notice



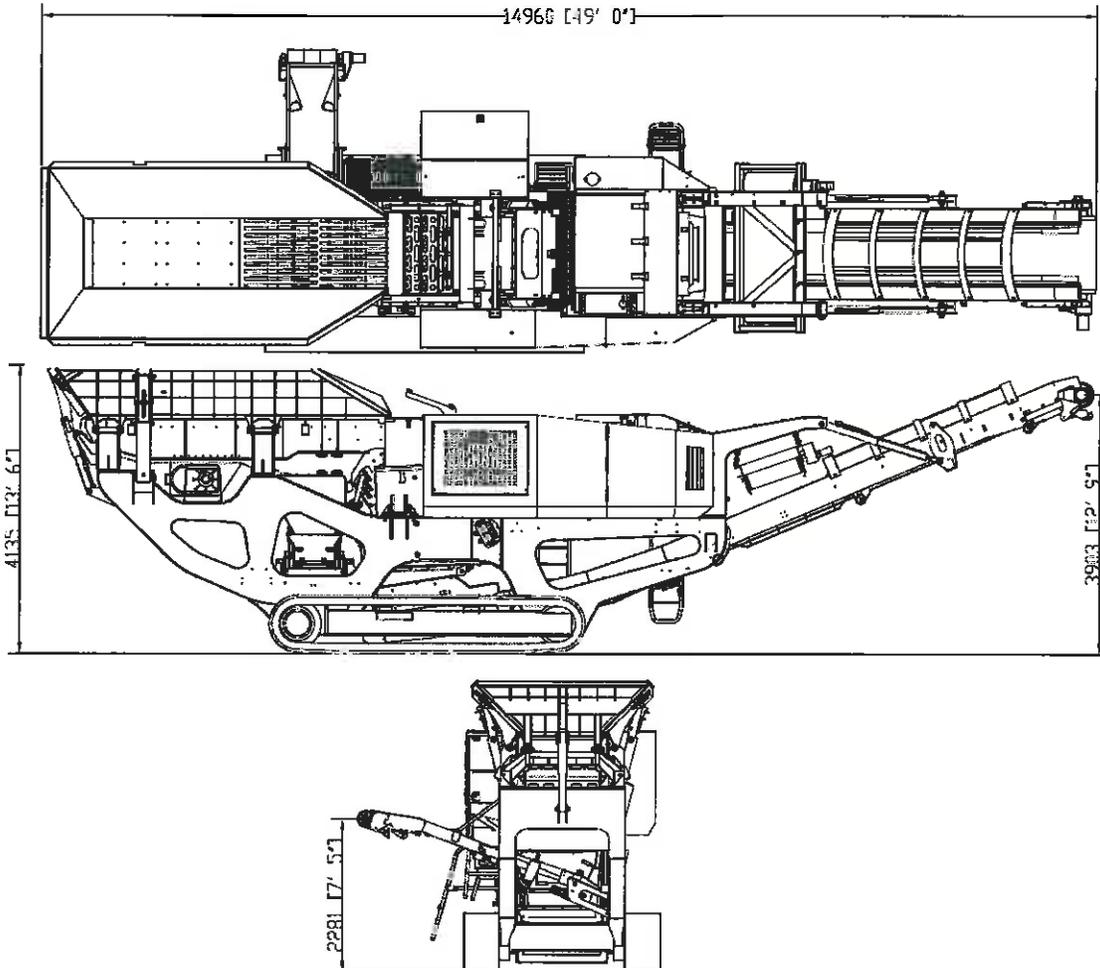
# Powerscreen® Premiertrak 400

SPECIFICATION Rev 6. 01/12/2013

## Approximate Plant Weight & Dimensions

<b>Working length:</b>	<b>14.96m</b>	<b>(49' 0")</b>
<b>Working height:</b>	<b>4.13m</b>	<b>(13' 6")</b>
<b>Working width:</b>	<b>2.8m</b>	<b>(9' 2")</b>
	<b>4.3m</b>	<b>(14' 1") Including dirt conveyor</b>
<b>Transport length:</b>	<b>15.2m</b>	<b>(49' 10")</b>
<b>Transport width:</b>	<b>2.80m</b>	<b>(9' 2")</b>
<b>Transport height:</b>	<b>3.4m</b>	<b>(11' 2")</b>
<b>Total plant weight:</b>	<b>44,450kg</b>	<b>(97,995lbs) Including magnet &amp; dirt conveyor</b>
<b>Paint colour:</b>	<b>RAL 5021</b>	

## Premiertrak 400 Working Dimensions



All specifications subject to change without prior notice



# Powerscreen® Premiertrak 400

SPECIFICATION Rev 6. 01/12/2013

**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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