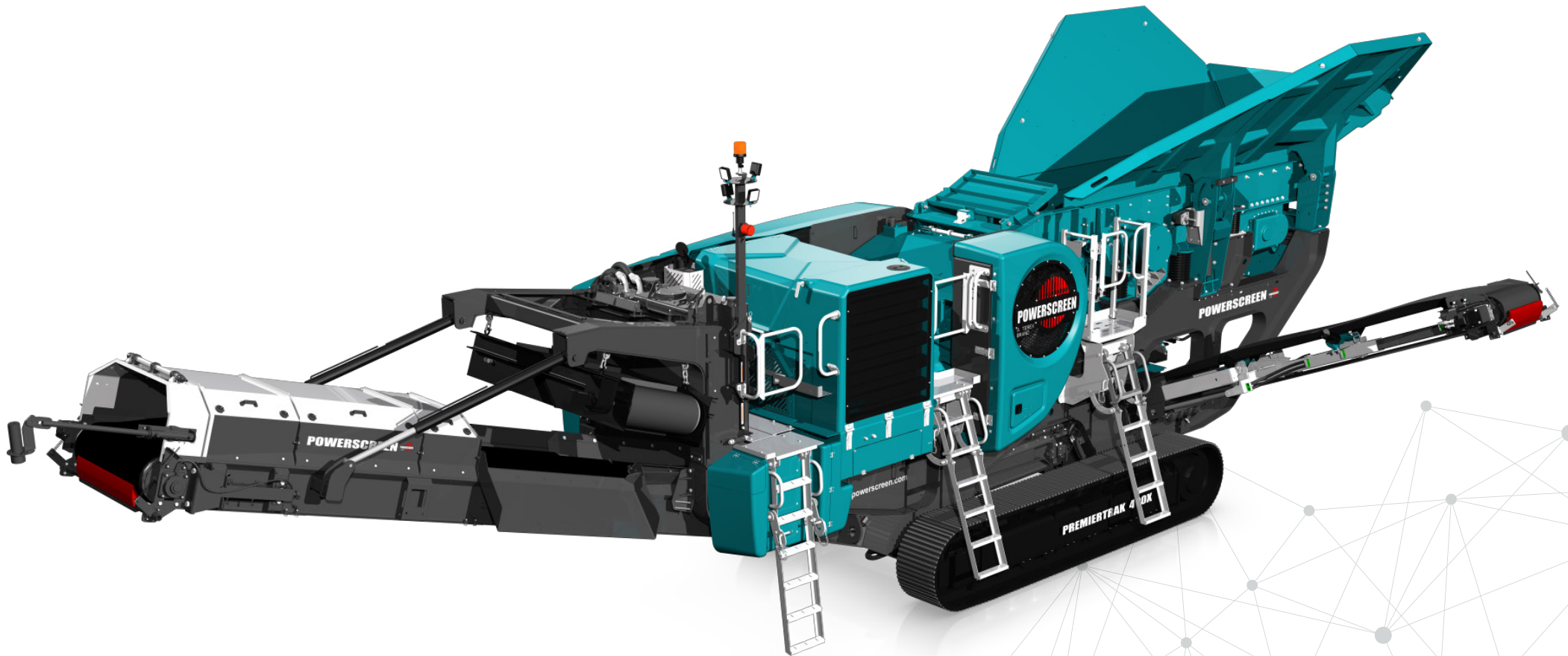


# POWERSCREEN® PREMIERTRAK 400X

JAW CRUSHER



TECHNICAL SPECIFICATION - REV 3 01/05/2021





## PREMIERTRAK 400X



# OVERVIEW

### SPECIFICATION

<b>Total Weight</b>	Tier 3: 46,500kg (102,515lbs) - VGF, HA chamber, standard hopper, bypass conveyor, single pole magnet Tier 4F: 46,650kg (102,846lbs) - VGF, HA chamber, standard hopper, bypass conveyor, single pole magnet Tier 4F: 48,030kg (105,888lbs) - PS, HA chamber, standard hopper, extended bypass conveyor, single pole magnet, extended product conveyor
<b>Transport</b>	<b>Length</b> 16.1m (52' 10") <b>Height</b> 3.4m (11' 2") (VGF) <b>Width</b> 2.8m (9' 2")
<b>Working</b>	<b>Length</b> 15.6m (51' 2") <b>Height</b> 4.13m (13' 7") (VGF) <b>Width</b> 5.01m (16' 5") with bypass conveyor
<b>Crusher Type:</b>	Single toggle jaw, feed opening 1100mm x 700mm (44"x 28")
<b>Power Unit</b>	Caterpillar C9 ACERT 194kW (260hp), Scania DC9 202kW (275hp) or Constant Speed: Scania DC09 248kW (322hp)
<b>Plant Colour</b>	RAL 5021, RAL 7024, RAL 9005

### FEATURES & BENEFITS

The Powerscreen® Premiertrak 400X 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 400X with hydraulic adjust & the Premiertrak R400X 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 of up to 400tph / 440 US tph - depending on material type and crusher settings
- Hydraulic folding feed hopper with hydraulic 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
- Crusher unblocking system (optional)
- Excellent under crusher access for removal of wire with hydraulic raise lower product conveyor
- Hydraulic raise / lower facility on the product conveyor to aid rebar clearance and maintenance
- 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
- Single deck post screen offers added machine versatility for customer (optional)

### APPLICATIONS



#### Aggregate

Sand & gravel  
Blasted rock  
River rock



#### Recycling

C&D waste  
Overburden  
Foundry waste



#### Mining

Processed ores  
Processed minerals



## PREMIERTRAK 400X



# ↓ JAW CRUSHER

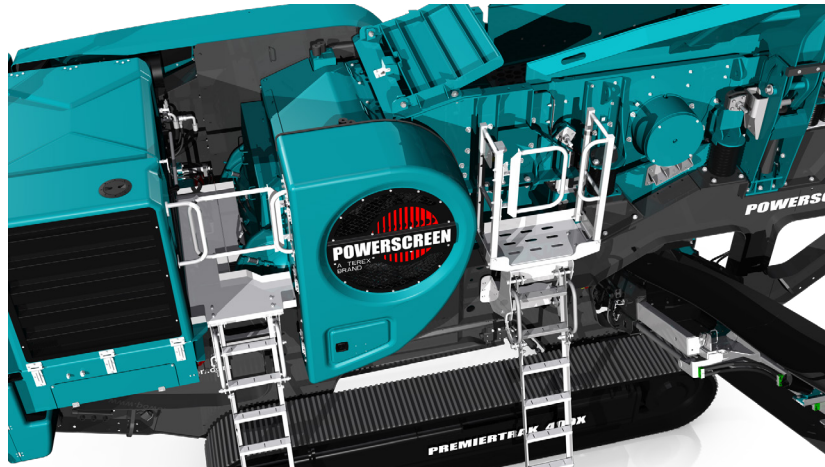
<b>Crusher type:</b>	Single toggle Jaw with hydraulic setting adjustment
<b>Feed opening:</b>	1100mm x 700mm (44" x 28")
<b>Bearings:</b>	Self aligning spherical rollers
<b>Lubrication:</b>	Grease
<b>Drive:</b>	V belts with screw adjust tensioner
<b>Factory pre-set:</b>	75mm (3") closed side setting (CSS)
<b>Minimum setting:</b>	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.

**Maximum setting:** 140mm (5.6") CSS standard jaws (HA)  
150mm (6") CSS standard jaws (HR)

**Adjustment:** Hydraulically adjusted CSS set by placing equal small shims into each side of the crusher

## 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



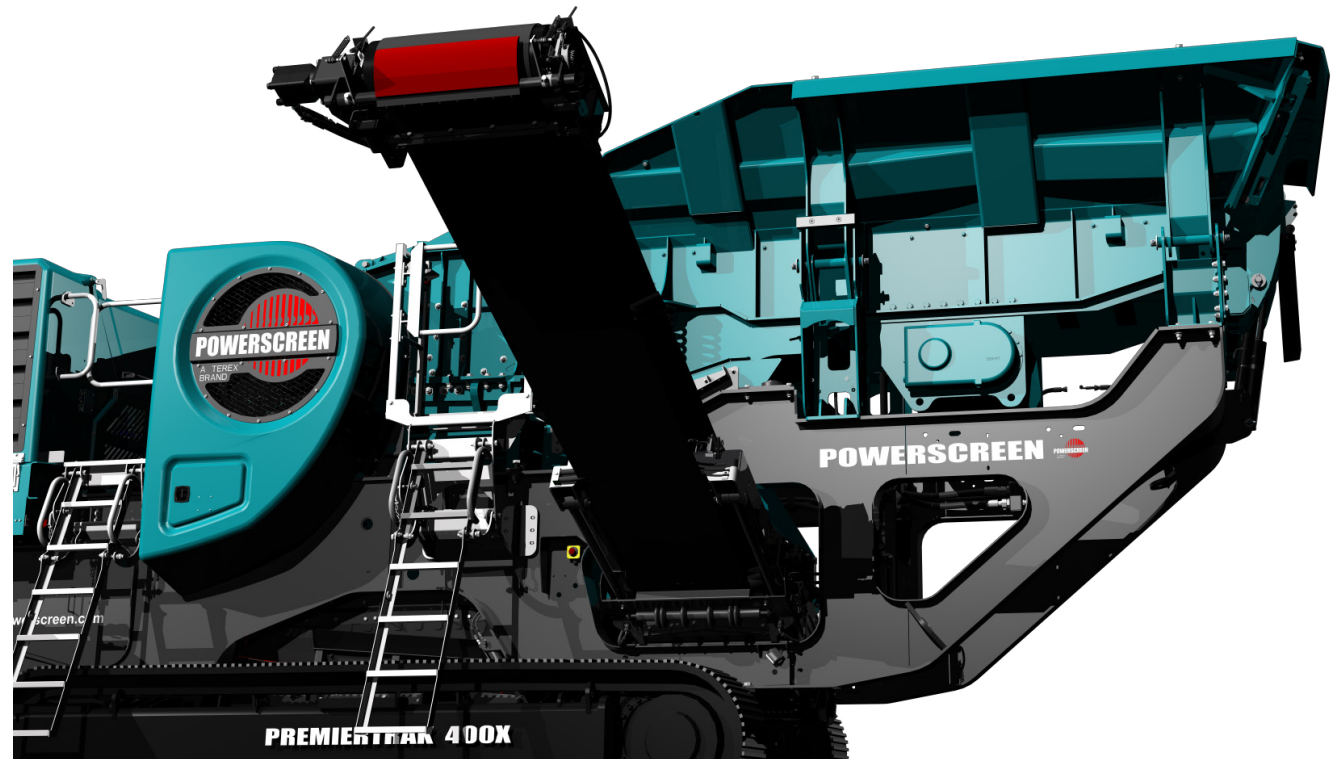


## PREMIERTRAK 400X



# ↓ HOPPER

- Hopper type:** Boltless hydraulic folding hopper, with hydraulic wedge lock fixing
- Hopper length:** 4.94m (16' 2")
- Hopper width:** 2.49m (8' 2")
- Hopper capacity:** Standard 10m<sup>3</sup> (13 cu. yd.)
- Hopper body:** 12mm thick wear resistant steel plate, mild steel reinforcing ribs with 15mm option (extended only)
- Control:** Variable speed control through a proportional flow control valve



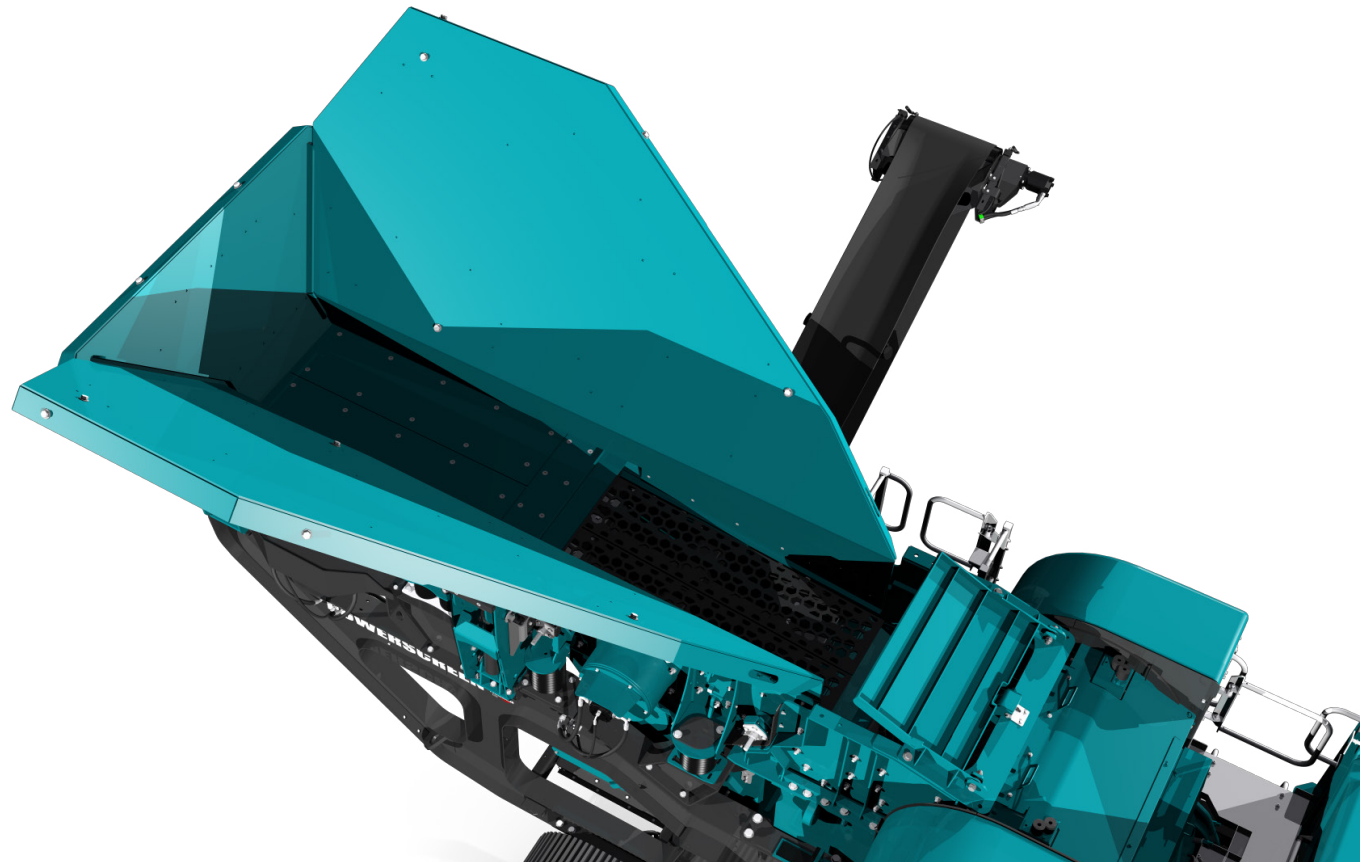


## PREMIERTRAK 400X



# VIBRATING GRIZZLY FEEDER

<b>Type:</b>	Spring mounted vibrating pan & grizzly feeder	<b>Grizzly:</b>	2 replaceable, stepped cartridge type grizzlies 50mm (2") nominal aperture, self cleaning - total grizzly length: 2.12m (6' 11")
<b>Vibrating unit:</b>	Twin heavy-duty cast eccentric shafts running in spherical roller bearings, gear coupled at drive end	<b>Underscreen:</b>	Rubber blanking mat fitted as standard. Can be substituted for optional wire meshes, used in conjunction with optional bypass conveyor.
<b>Length:</b>	4.29m (14' 1")		
<b>Width:</b>	1.06m (3' 6")		
<b>Drive:</b>	Flange mounted hydraulic motor		





## PREMIERTRAK 400X



# PRODUCT CONVEYOR

<b>Conveyor type:</b>	Troughed belt conveyor
<b>Design:</b>	Hydraulic raise & lower facility to aid rebar removal & transportation. Fully lowers for maintenance. Fully removable modular unit to aid access & maintenance
<b>Belt type:</b>	EP500/3 with 8mm top & 2mm bottom cover, vulcanised
<b>Belt width:</b>	1000mm (3' 3")
<b>Discharge height:</b>	3.9m (12' 10")
<b>Stockpile volume:</b>	96m <sup>3</sup> (125 cu. yd.)
<b>Drive:</b>	Direct drive hydraulic motor
<b>Tunnel:</b>	Improved tunnel & side covers to minimise rebar snagging
<b>Feedboot:</b>	Mild steel plate with abrasion resistant steel liners at feed point
<b>Belt adjustment:</b>	Screw adjusters at head & tail drum

<b>Belt covers:</b>	Aluminium removable dust covers fitted to head section beyond magnet
<b>Belt scraper:</b>	SCS high performance scraper as standard
<b>Lubrication:</b>	Remote head drum grease points located under shedder plate (reversible)
<b>Skirting:</b>	Wear resistant rubber skirts to magnet, slider pads after 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.

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





## PREMIERTRAK 400X



# POWER UNIT & HYDRAULICS

- Tier 3 Equivalent:** Caterpillar C9 ACERT, 6 cylinder, direct injection 194kW (260hp)
- Operating conditions:** Ambient temp. +30°C & -5°C (86F & 23F) 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:** 1600-1700 rpm
- Plant drive:** High quality pumps driven via engine
- Fuel tank capacity:** 456 L (120 US G) - sufficient for a 12 hour shift
- Hydraulic tank capacity:** 355 L (94 US G)
- Tier 4F / Stage V :** Scania DC9 84A 5 cylinder, turbo, 202kW (275hp)
- Operating conditions:** Ambient temperature +30°C & -5°C (86F & 23F) 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:** 1400-1650 rpm
- 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:** 456 L (120 US G)
- Hydraulic tank capacity:** 355 L (94 US G)
- DEF tank capacity:** 19 L (5 US G)
- Stage IIIA Constant Speed:** Scania DC09 248kW (322hp) @1500rpm
- Clutch type:** Highly efficient, self-adjusting HPTO 12 dry plate clutch with electro hydraulic operation
- Crusher drive:** Direct drive via wedge belts,  
Tier 3: Clutch pulley diameter 200mm (8.3")  
Tier 4F: Clutch pulley diameter 212mm (8.3")  
Constant Speed: Clutch pulley diameter 224mm(8.3")  
Crusher pulley diameter 1260mm (4' 2")

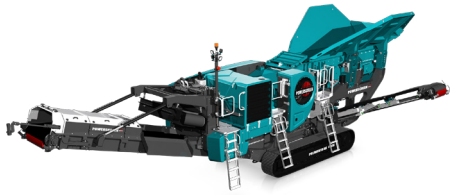
- Drive tensioning:** Manual screw tensioners located beside power unit

### Scania Stage V / 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.



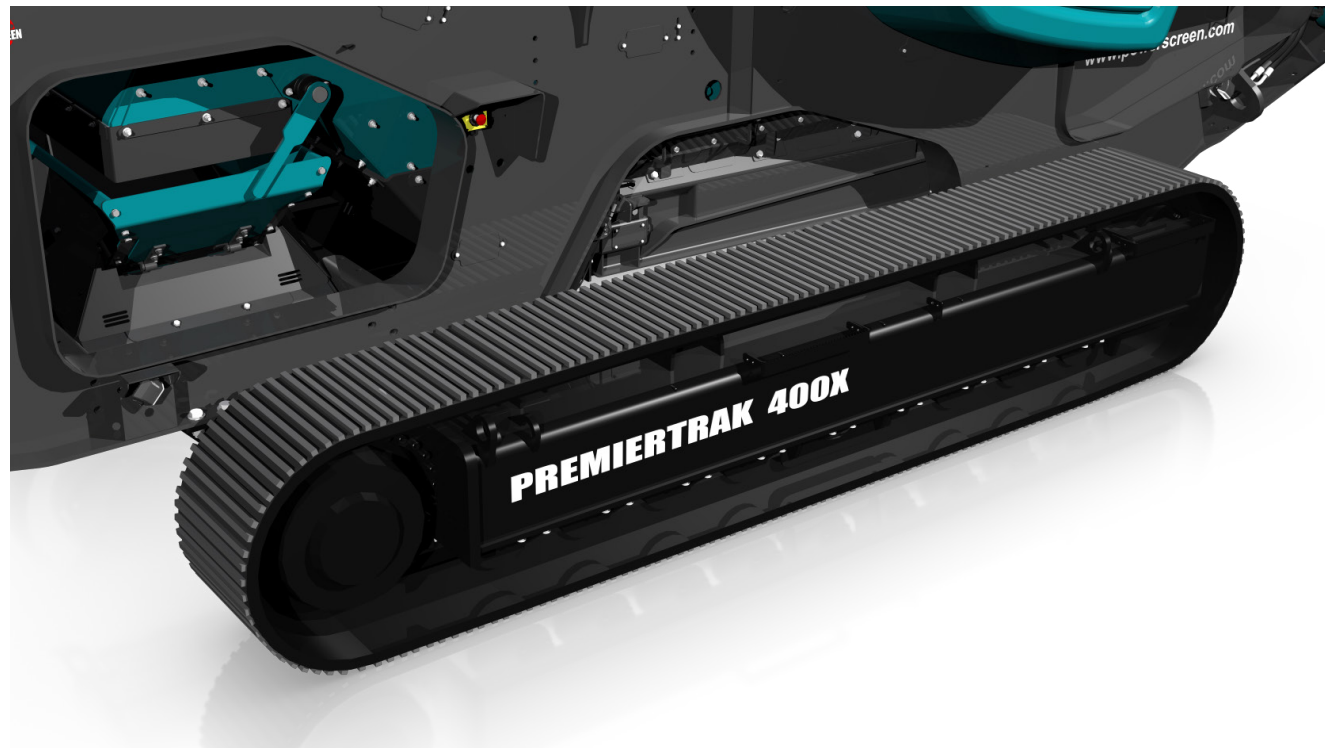


## PREMIERTRAK 400X



# TRACKS

<b>Type:</b>	Heavy duty tracks
<b>Sprocket centres:</b>	3.76mm (12'4")
<b>Track width:</b>	500 mm (1' 8")
<b>Gradeability:</b>	30° maximum
<b>High Speed:</b>	0.9kph (0.56mph)
<b>Drive:</b>	Hydraulic motors
<b>Tensioning:</b>	Hydraulic adjuster, grease tensioned





## PREMIERTRAK 400X



# PLANT CONTROLS & OTHER

## CHASSIS

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

## GUARDS

Wire mesh, sheet metal or GRP 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

Incline ladders with double handles and platforms provide access to both sides of power unit and one side of feeder.

## 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

## PLANT CHUTE-WORK

**Crusher feed chute:** One piece fabrication with 15mm thick mild steel plate sides with 20mm thick bottom plate.

**Grizzly fines/ bypass:** Standard 2 way position, all material directed to product conveyor or material passing VGF is directed to product conveyor and material through mesh to bypass conveyor.  
Option: Divert all material to bypass Conveyor



## PREMIERTRAK 400X



# ↓ OPTIONS 1

### HOPPER EXTENSIONS

**Hopper type:** Hydraulic folding extended hopper with hydraulic wedge lock system

**Hopper Capacity:** 12m<sup>3</sup> (14.4 cu. yd.)

**Hopper body:** 12mm or 15mm wear resistant plate, steel ribs

### EXTENDED PRODUCT CONVEYOR

**Conveyor type:** Troughed belt conveyor

**Design:** Hydraulic raise & lower facility to aid rebar removal & transportation.  
Fully lowers for maintenance.  
Fully removable modular unit to aid access & maintenance

**Belt type:** EP500/3 with 8mm top & 2mm bottom cover, vulcanised

**Belt width:** 1000mm (3' 3")

**Discharge height:** 4.1m (13' 5")

**Stockpile volume:** 111m<sup>3</sup> (145 cu. yd.)

### SINGLE DECK POST-SCREEN

**Screen area:** 2.44m x 1.52m (8' x 5')

**Tensioning:** Side tensioned

**Drive:** Hydraulic with heavy duty bearing

**Screen angle:** 23°

**Oversize conveyor:** 650mm (2' 2")

**Discharge height:** 2.8m (9' 2")

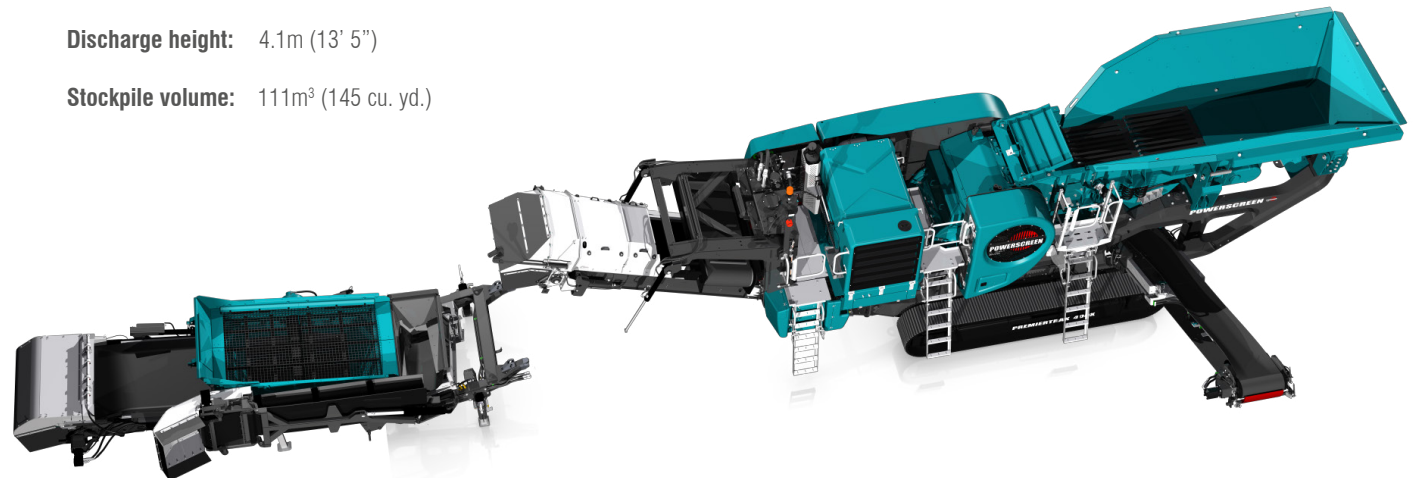
**Stockpile volume:** 36m<sup>3</sup> (47 cu. yd.)

**Fines conveyor:** 1400mm (4' 7")

**Discharge height:** 2.8m (9' 2")

**Stockpile volume:** 36m<sup>3</sup> (47 cu. yd.)

\*Both hydraulically fold for transport





## PREMIERTRAK 400X



## ↓ OPTIONS 2

### PAN FEEDER & 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: 2.33m (7' 8") Width: 1.06m (3' 6")

**Pan:** 12mm thick fully welded base plate with 12mm thick abrasion resistant liners

**Pan:** Variable speed control through control panel & (radio remote optional)

**Pre-screen:** Spring mounted vibrating unit  
9mm throw, 1000rpm screen speed

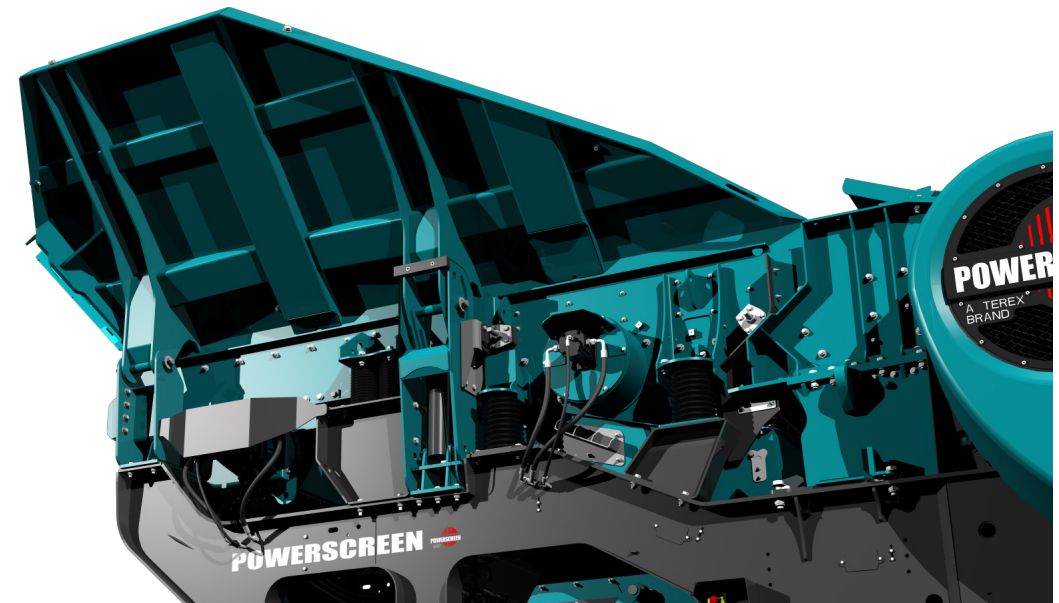
**Vibrating unit:** Single shaft, out of balance weights, flange mounted hydraulic motor

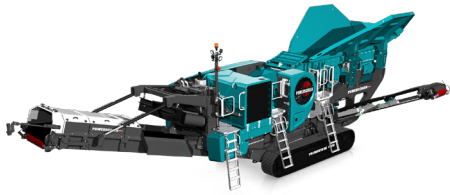
**Top deck:** 2 piece cartridge with 2.08m (6' 10") long self cleaning fingers 75mm (3") nominal spacing

**Bottom deck:** 16° Incline with 30mm (1.2") mesh  
Length: 1.25m (4' 1") Width: 1m (3' 3")

**Chute:** Bypass chute with internal 2 way flap door fitted, to control direction of fines, either forward onto the product belt or onto the optional side conveyor (if blanking mat is fitted)

**Modular section:** Hopper & feeder mounted on removable modular sub frame





## PREMIERTRAK 400X



# ↓ OPTIONS 3

### BYPASS CONVEYOR

**Conveyor type:** Troughed, modular with hydraulic raise & lower  
Folds hydraulically for transport

**Belt width:** 650mm (2' 2")

**Discharge height:** 2.24m (7' 4")

**Stockpile volume:** 17m<sup>3</sup> (22 cu.yd.)

**Drive:** Direct drive hydraulic motor

**Position:** Discharge on RHS of plant

### EXTENDED BYPASS CONVEYOR

**Belt width:** 650mm (2' 2")

**Discharge height:** 3.07m (10' 1")

**Stockpile volume:** 46m<sup>3</sup> (60 cu. yd.)

### MAGNET

**Options:** CP020 single pole (S.P.)  
TP020 twin pole (T.P.)

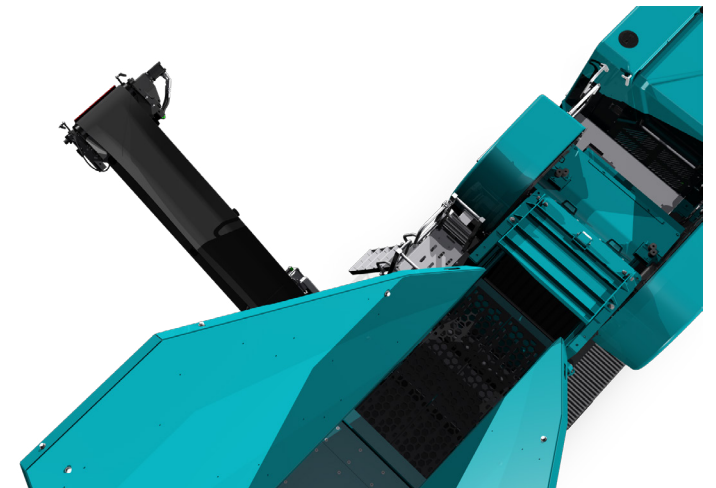
**Belt width:** 750mm (2' 6")

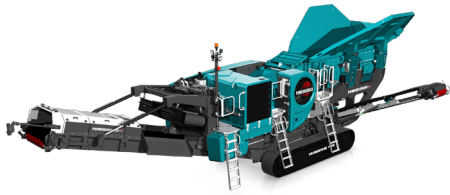
**Centres:** 1700mm (5' 7")

**Drive / control:** Direct drive hydraulic motor, pre-set variable speed

**Discharge:** LHS via stainless shedder plate

**Weight:** S.P. 1000kg (2204lbs)  
T.P. 1500kg (3306lbs)





## PREMIERTRAK 400X



# ↓ OPTIONS 4

### FEEDER UNDERSCREEN MESH

**Position:** Removable wire meshes fitted in lieu of the standard rubber blanking mat, used in conjunction with optional bypass 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 400X and R400X jaw crushers. They are suitable for most quarry & recycling applications & give an excellent cost per tonne crusher

#### **Super Tooth Jaws**

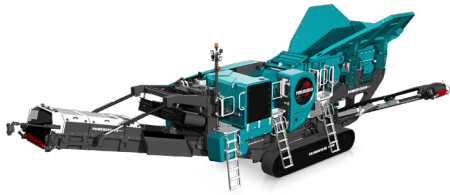
For extended life across most quarrying applications. Super Tooth has a significantly increased wear life using a deeper profile without comprising strength or product shape

#### **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 in 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.



## PREMIERTRAK 400X



# ↓ OPTIONS 5

### 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.

### BELT WEIGHER

Type: Roller scale & display unit  
Accuracy: + 1.0 + 0.5%  
Display: Separate read out near control panel

### OPTIONAL EXTRAS

- 15mm hopper
- Super Tooth or Multi Tooth jaw plates
- Chamber unblocking system
- Deflector plate under crusher
- Bypass conveyor
- Extended bypass conveyor
- Magnet prepared
- Bolt on hopper extensions
- Stockpile sensor
- Dust covers
- Radio remote control
- Single pole overband magnetic separator

### RADIO REMOTE CONTROL

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

Remote can also be used to:  
Feeder (start/stop)

### 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)

- Twin pole overband magnetic separator
- Belt weigher
- Electric refuelling pump
- Hydraulic water pump
- Radio remote control
- Extended product conveyor
- Single deck post-screen
- Pre-screen
- Jaw level sensor
- Plant lighting mast
- 3rd position bypass chute



## PREMIERTRAK 400X



# ↓ 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**

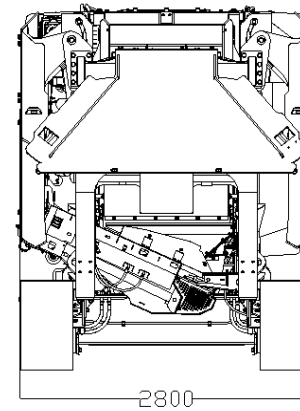
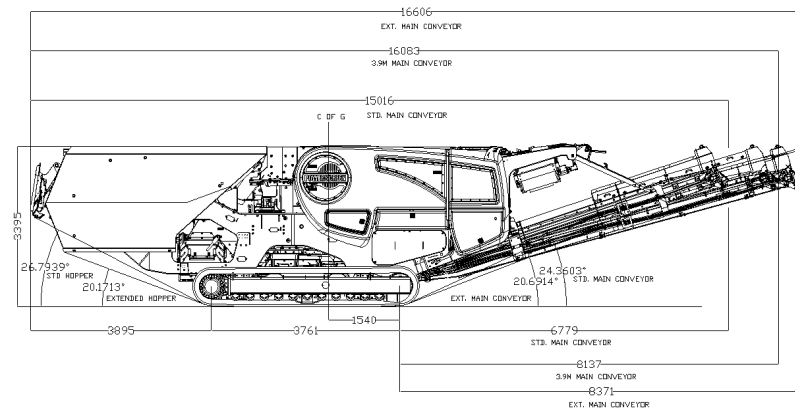


## PREMIERTRAK 400X



# DIMENSIONS

Figure 1: Premiertrak 400X & R400X  
VGF & Bypass Conveyor  
Transport Position



[MORE DIMENSIONS OVERLEAF](#)

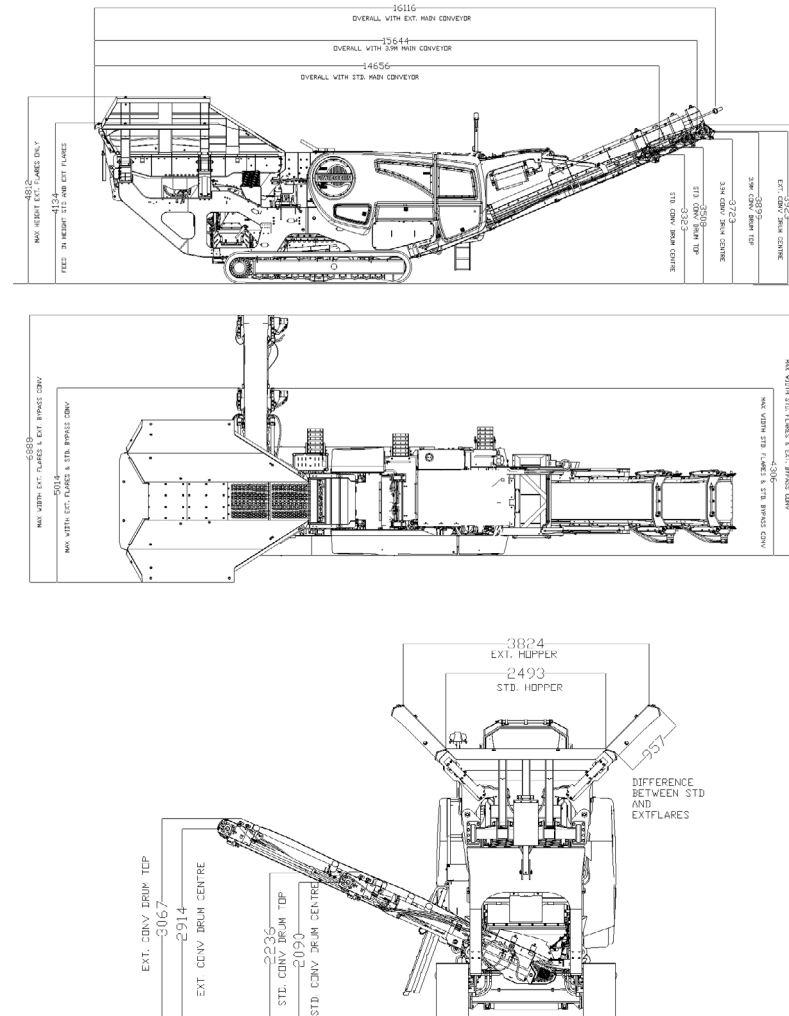


# PREMIERTRAK 400X



## DIMENSIONS

Figure 2: Premiertrak 400X & R400X  
VGF & Bypass Conveyor  
Working Position



MORE DIMENSIONS OVERLEAF

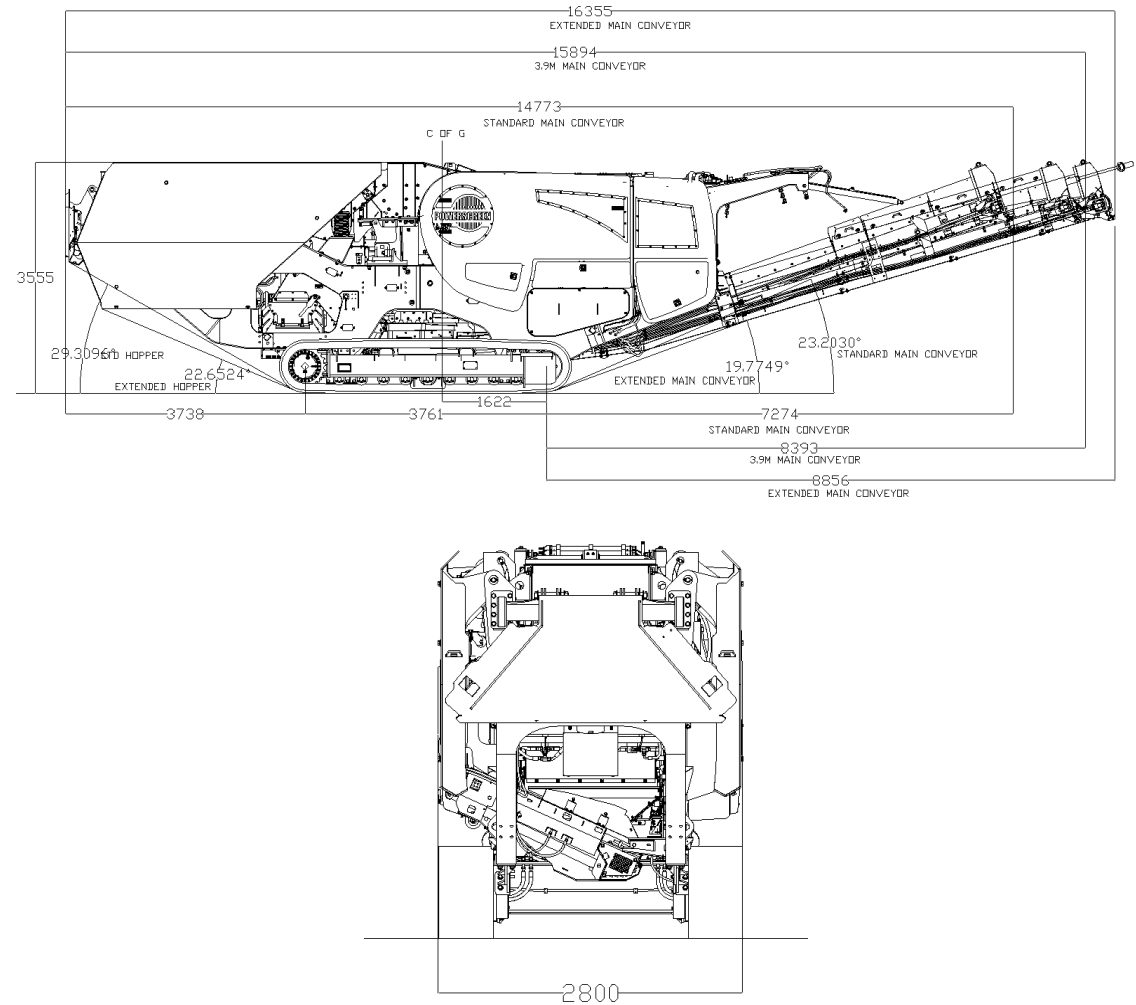


## PREMIERTRAK 400X



# DIMENSIONS

Figure 3: Premiertrak 400X & R400X  
Pre-screen & Extended Product Conveyor  
Transport Position



MORE DIMENSIONS OVERLEAF

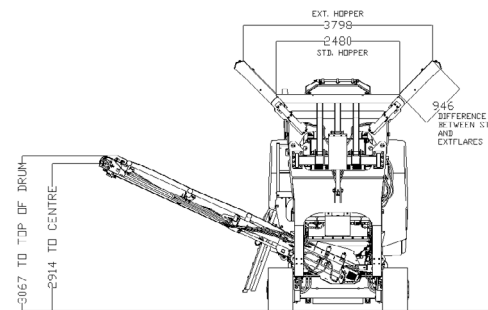
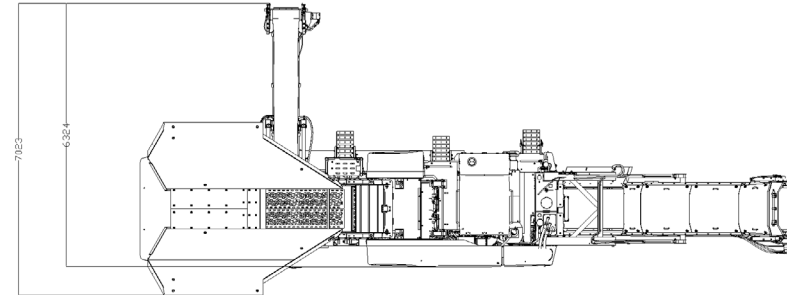
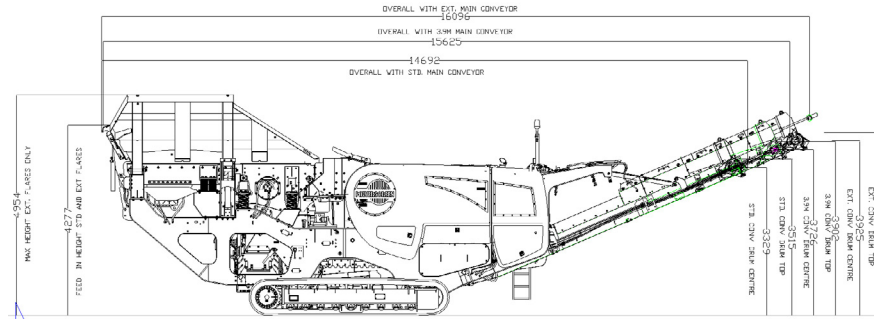


# PREMIERTRAK 400X



## DIMENSIONS

Figure 4: Premiertrak 400X & R400X  
Pre-screen & Extended Product Conveyor  
Working Position



MORE DIMENSIONS OVERLEAF

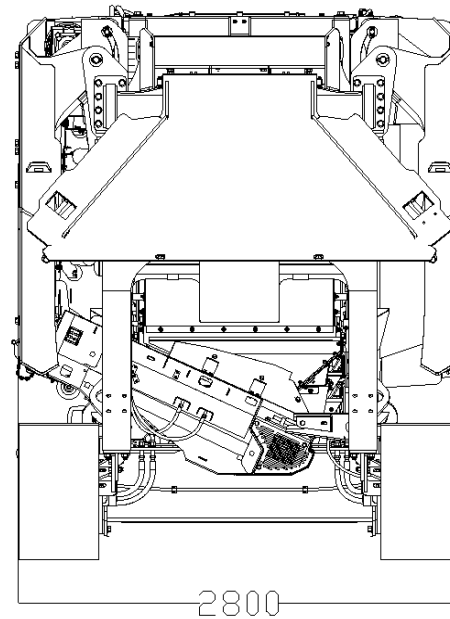
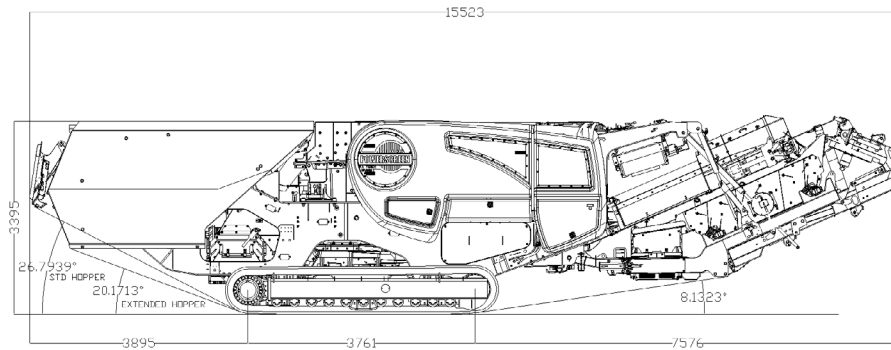


## PREMIERTRAK 400X



# DIMENSIONS

Figure 5: Premiertrak 400X & R400X  
VGF & Post-Screen  
Transport Position



MORE DIMENSIONS OVERLEAF

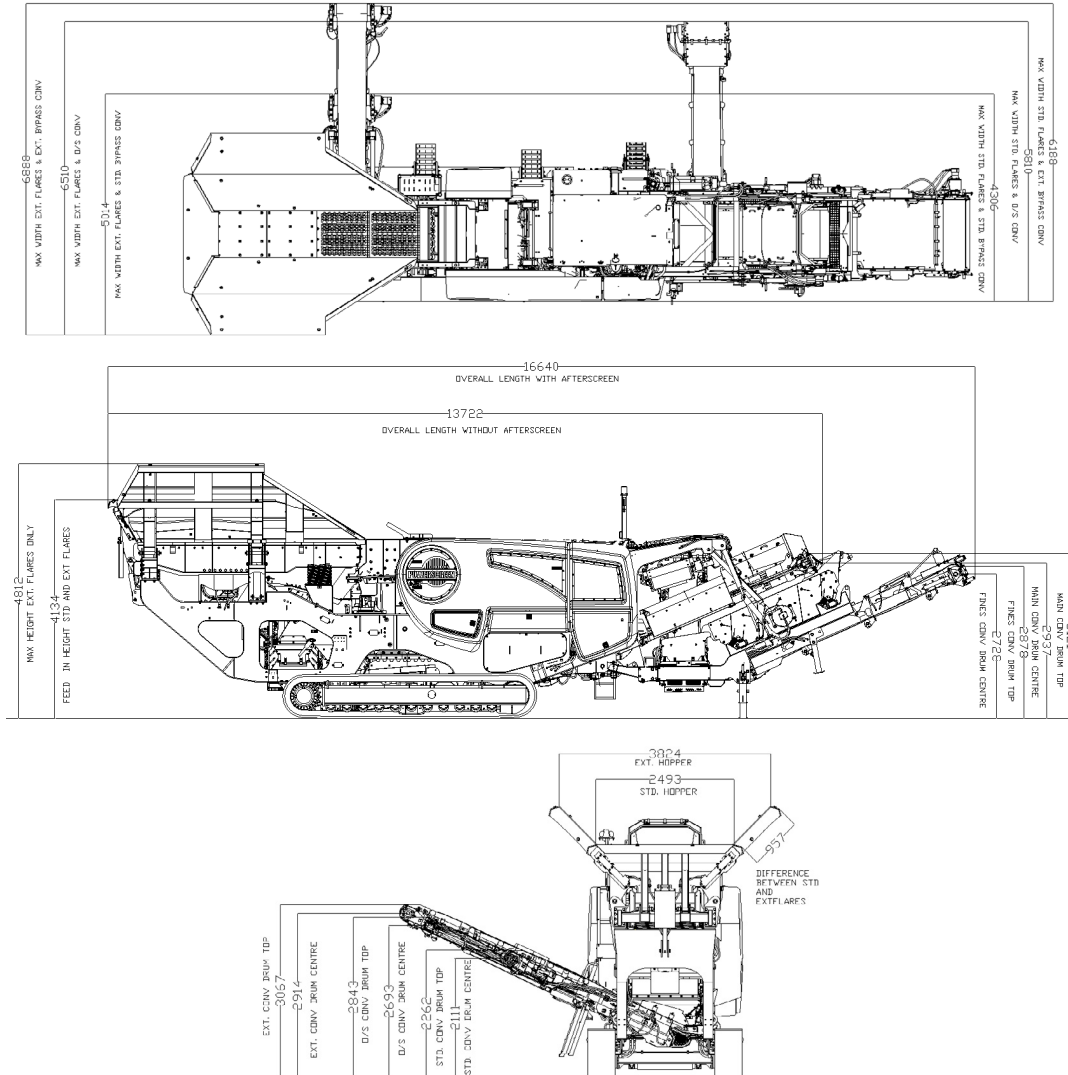


# PREMIERTRAK 400X

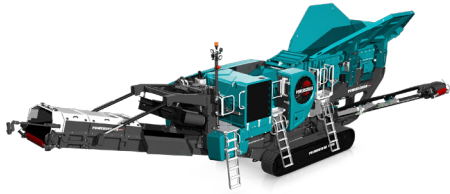


# DIMENSIONS

Figure 6: Premiertrak 400X & R400X  
VGF & Post-Screen  
Working Position



MORE DIMENSIONS OVERLEAF

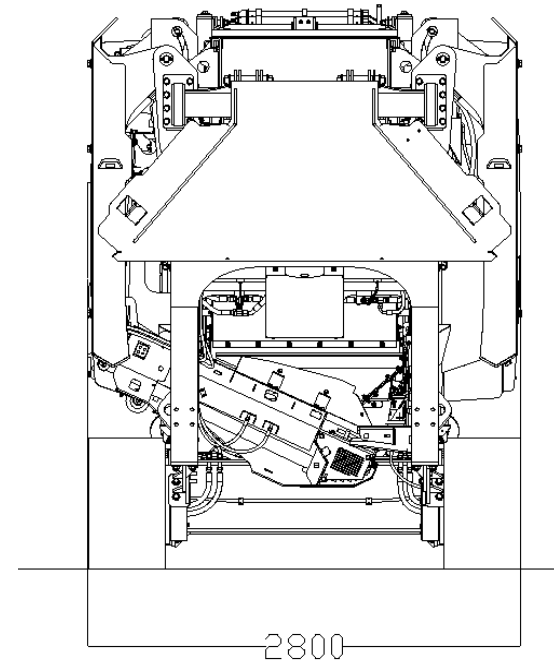
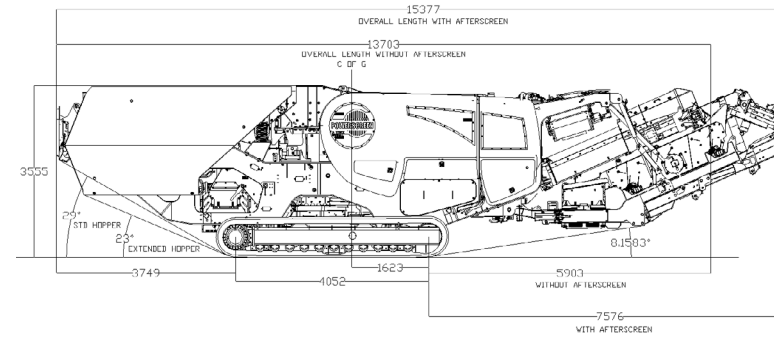


## PREMIERTRAK 400X



# ↓ DIMENSIONS

Figure 7: Premiertrak 400X & R400X  
Pre-screen & Post-Screen  
Transport Position



MORE DIMENSIONS OVERLEAF





### **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**

### **Dungannon**

200 Coalisland Road, Dungannon,  
Co Tyrone, BT71 4DR, Northern Ireland  
Tel: +44 (0) 28 87 718 500  
Fax: +44 (0) 28 87 747 231

### **Louisville**

11001 Electron Drive,  
Louisville, Kentucky, 40299 USA  
Tel: +1 502 736 5200  
Fax: +1 502 736 5202

