# POWERSCREEN®
# PREMIERTRAK 420E

## HYBRID JAW CRUSHER

GET STARTED




**TECHNICAL SPECIFICATION** - REV 0 01/09/2020

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# PREMIERTRAK 420E


- OVERVIEW
- JAW CRUSHER
- HOPPER
- VIBRATING GRIZZLY FEEDER
- PRODUCT CONVEYOR
- POWER UNIT & HYDRAULICS
- TRACKS
- PLANT CONTROLS & OTHER
- OPTIONS
  - OPTIONS 2
- POWERSCREEN® PULSE
- DIMENSIONS


# OVERVIEW

## SPECIFICATION

| | | |
|---|---|---|
| **Total Weight** | 54,300kg (119,711lbs) - without bypass conveyor and magnet<br>56,500kg (124,561lbs) - with bypass conveyor and magnet | |
| **Transport** | **Length** | 14.5m (47' 8") |
| | **Height** | 3.5m (11' 6") |
| | **Width** | 2.9m (9' 6") |
| **Working** | **Length** | 15.7m (51' 8") |
| | **Height** | 3.95m (12' 1") |
| | **Width** | 6.2m (20' 4") with bypass conveyor |
| **Crusher Type:** | Single toggle jaw, feed opening 1070mm x 760mm (42"x 30") | |
| **Power Unit** | Scania DC09 257kW (350hp), or Scania DC09 273kW (365hp) | |
| **Plant Colour** | RAL 5021, RAL 7024, RAL 9005 | |

## FEATURES & BENEFITS

The Powerscreen® Premiertrak 420E hybrid jaw crusher offers operators the flexibility to power the plant via either mains electricity or the on-board genset power-pack. Either option presents the operator with significant power, servicing and maintenance cost savings when compared to a diesel / hydraulic solution.

The plant incorporates the robust Terex® JW42 high performance, electrically driven single togle jaw chamber and a heavy duty VGF feeder to provide optimal throughput in quarrying, mining, demolition and recycling applications. Additional benefits include rapid set up time, ease of maintenance, high reduction ratio, high output capacity and an advanced electronic control system.

- Output potential of up to 420tph / 463 US tph - depending on material type and crusher settings
- The electrically driven power systems provide significant cost savings.
- Superior performance in dusty applications and in high altitude environments.
- High powered electric drive ensures precise chamber control and reverse functionality for clearing blockages and proving advantageous in recycling or demolition applications.

## APPLICATIONS

**Aggregate**
Sand & gravel
Blasted rock
River rock

**Recycling**
C&D waste
Overburden
Foundry waste

**Mining**
Processed ores
Processed minerals



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# JAW CRUSHER

| | |
|---|---|
| **Crusher type**: | Terex JW42 chamber - single toggle jaw |
| **Feed opening:** | 1070mm x 760mm (42" x 30") |
| **Under Jaw Clearance:** | 460mm nominal (1' 6'') |
| **Lubrication:** | Grease |
| **Drive:** | Electric |
| **Max CSS:** | 145mm ($5^{3/4}$'') - subject to toggle selection |
| **Min CSS:** | 45mm ($1^{3/4}$") - demolition & recycling |
| | 75 mm (3") - hard rock quarry applications |
| | 60mm ($2^{1/2}$") - soft rock quarry applications |

Reverse action for clearing blockages - also adventageous in recycling applications.
Full hydraulic closed side setting adjust.
S-Tooth (18% Manganese) fitted as standard.
Standard toggle selection is 590mm (23'')





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# HOPPER

**Feed height VGF**: 3.98m (12’ 11”)
**Feed height Pre-Screen**: 4.12m (13’ 6”)
**Hopper capacity**: Standard 9m³ (11.7 cu. yd.)
**Hopper capacity (extensions)**: Standard 11m³ (14.4 cu. yd.)
**Feed width rear VGF**: 2.67m (8’ 9”)
**Feed width rear Pre-Screen**: 2.65m (8’ 8”)
**Hopper body**: 12mm thick wear resistant steel plate
Manual locking mechanism.
Hydraulically folding sides and rear.



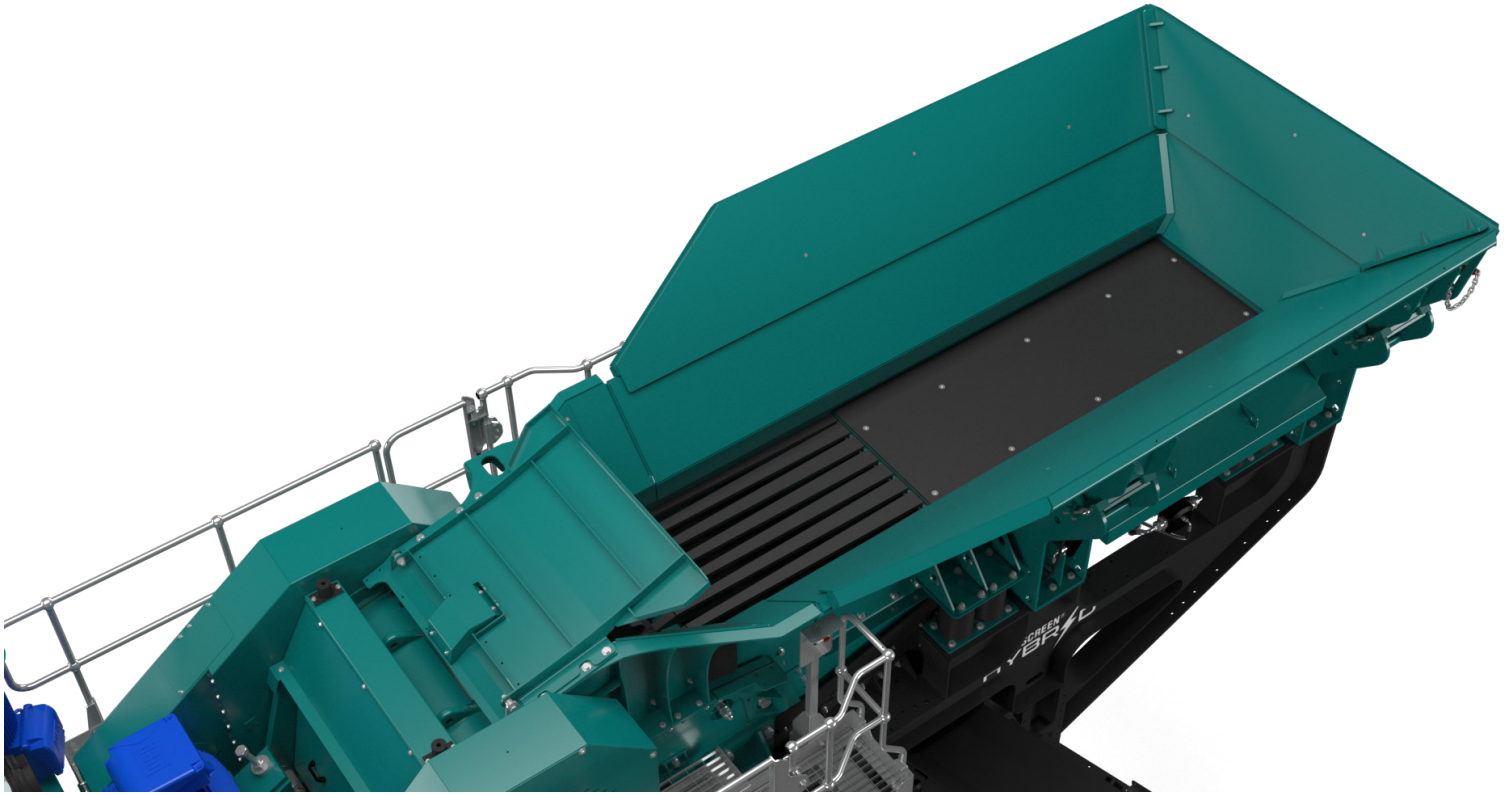


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# VIBRATING GRIZZLY FEEDER

| | |
|---|---|
| **Length:** | 4.25m (13' 11") |
| **Width:** | 1.05m (3' 5") |
| **Grizzly:** | 75mm (3'') - 50mm(2''), 100mm (4'') or 125mm (5'') available |
| **Underscreen:** | VGF wire mesh aperture 38mm (1.5'') - other options available. |
| **Speed:** | Variable: 450 - 850rpm |





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# PRODUCT CONVEYOR

**Conveyor type**: Troughed belt conveyor
**Belt type**: Plain
**Belt width**: 1000mm (40")
**Discharge height**: 3.6m (11' 10")
**Stockpile volume**: 70m³ (91 cu. yd.)
**Discharge height ext**: 4m (13' 2")
**Stockpile volume ext**: 95m³ (125 cu. yd.)
**Angle**: 22°
**Speed**: 100m/min nominal

When extended conveyor option is selected the head section will fold for transport.

Optional conveyor raise / lower.

Impact bars and wear resistant liners at feed point.

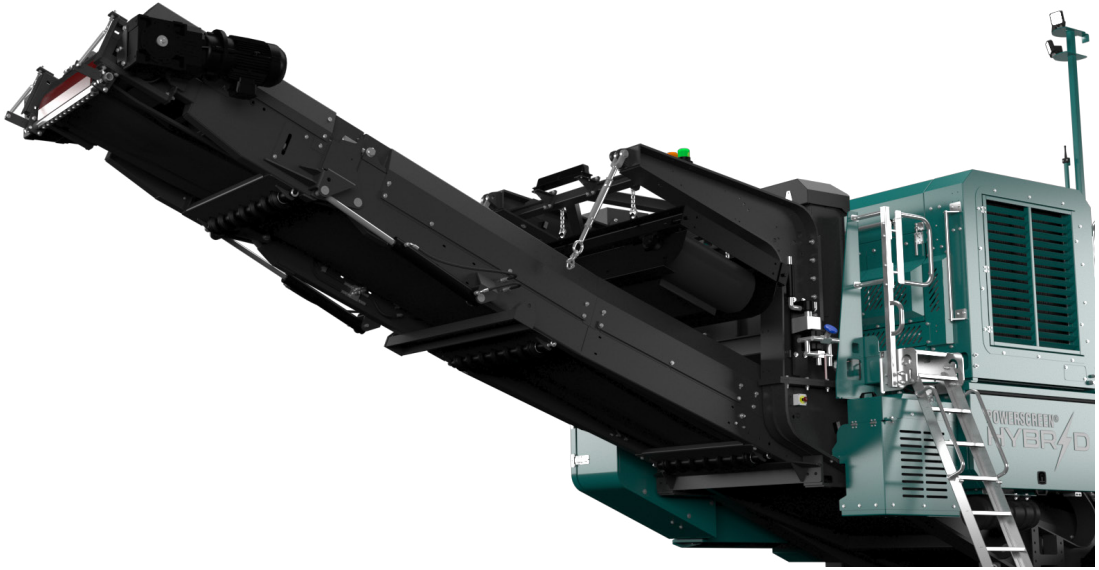
High spec scraper at head drum.

Tail section rises hydraulically when tracking.

## 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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# POWER UNIT & HYDRAULICS

| | |
|---|---|
| **Tier 2 / Stage II Equivalent**: | Scania DC09 |
| **Engine Power**: | 257kW (350hp) |
| **Engine Speed**: | 1500rpm (1800rpm USA) |
| **Stage IIIA (Tier 3) Constant Speed**: | Scania DC09 |
| **Engine Power**: | 273kW (365hp) |
| **Engine Speed**: | 1500rpm |
| **Tier 4F / Stage IV**: | Scania DC09 |
| **Engine Power**: | 257kW (350hp) |
| **Engine Speed**: | 1500rpm (1800rpm USA) |

| | |
|---|---|
| **Stage V**: | Scania DC09 |
| **Engine Power**: | 257kW (350hp) |
| **Engine Speed**: | 1500rpm (1800rpm USA) |
| **Hydraulic Tank Capacity**: | 390L (103 US GAL) |
| **Fuel Tank Capacity**: | 430L (114 US GAL) |
| **Urea Tank Capacity**: | 60L (16 US GAL) |





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# TRACKS

| | |
|---|---|
| **Type**: | Heavy duty tracks |
| **Sprocket centres:** | 3.78mm (12'5'') |
| **Track width:** | 500 mm (1' 8") |
| **Gradeability:** | 25˚ maximum |
| **High Speed:** | 1.1kph (0.68mph) |
| **Drive:** | Hydraulic motors |
| **Tensioning:** | Hydraulic adjuster, grease tensioned |





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# PLANT CONTROLS & OTHER

### CHUTES

Heavy duty inlet chute with bolt-up construction and liner plates.

Bypass chute with seletable discharge flop gate, to either the bypass conveyor or product conveyor.

### PLATFORMS

Catwalk access on both sides of the machine with access to both sides of the powerunit.
Compact folding for transport.

### PLANT CONTROLS

Advanced CANBUS compliant system large display screen (IP65 Rated). Four simple operating modes with menu driven graphic user interface:

- Track mode: for moving machine.
- Automatic mode: for automatically starting the machine in prede-termined sequence.
- Set up mode: for folding / setting up machine
- Configuration mode: for testing / setting individual components.

Choice of pre-set parameters to suit crushing applications:

- Hard rock
-Soft rock
-Demolition and Recycling

User friendly incremental selection of feeder and crusher speed enables the operator to achieve the optimal throughput.

Detachable umbilical cord for tracking.

Optional radio remote control.

Integrated machine and engine control panel.

Lockable compartment.

Auto regulating feeder selectable for improved throughput control.

### TOOLBOX

Mounted lockable toolbox.

Tool kit, flogging spanners, grease gun & manuals included.

### ELECTRICAL SPECIFICATION

Main conveyor: 2 x 7.5kW motors

Magnet: 1.5kW motor

Bypass conveyor: 4kW motor

Main hydraulic pump: 55kW motor (tracking, pre-screen. feeder, folding).

Crusher motor: 110kW controlled via VSD (Speed control, ability to run in reverse & unblock feature).

### ALTERNATOR

330kVA / 264kW with standard auxiliary drive capable of driving an additional 100kVA.

### ELECTRICAL

Emergency stops.

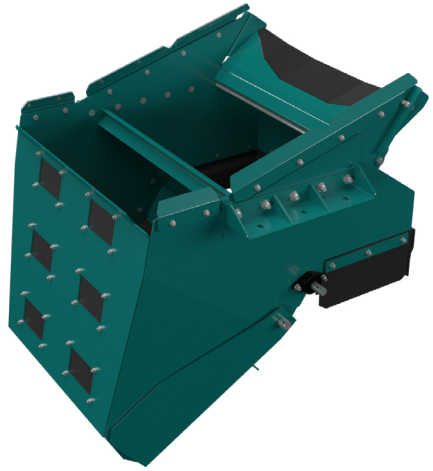
Hand held track control set with connection lead.

### OTHER

Safety guards in compliance with machinery diretive.

Seperate central operators panel.

Piped for dust suppression complete with spray bars.





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# OPTIONS 1

### PAN FEEDER & PRE-SCREEN

**Type:** Independant pre-screen

**Pan Speed:** Variable: 450 - 850rpm

Comes with extended bypass conveyor
75mm (3'') cassette spacing - other options available
38mm (1.5'') mesh - other options available

### BYPASS CONVEYOR

**Belt width**: 650mm (26")

**Discharge height:** 2.1m (7')

**Stockpile volume:** 13.8m³ (18 cu.yd.)

**Drive**: Direct drive hydraulic motor

**Working Angle**: 22º

Hydraulically folds for transport.

### EXTENDED BYPASS CONVEYOR

**Belt width**: 650mm (26")

**Discharge height:** 2.9m (9' 6'')

**Stockpile volume:** 36.3m³ (47.5 cu. yd.)

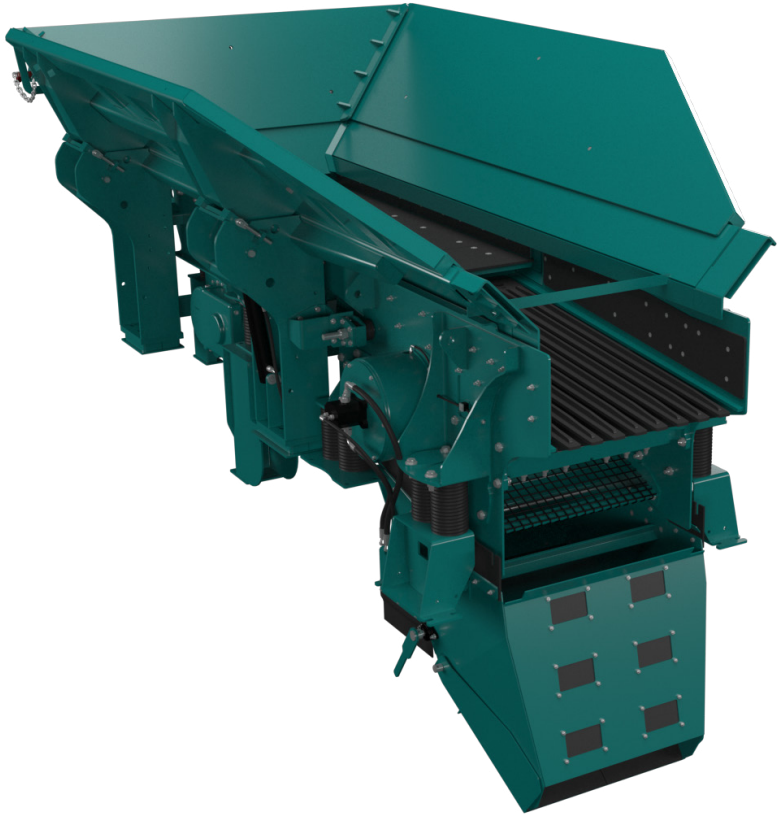
### RADIO REMOTE CONTROL

Full function radio remote control.
Machine can be switched from crushing mode into track mode, moved and then switched back into operating mode from remote control unit.
Feeder stop / start.

### MAGNET

**Options**: Sngle pole (S.P.)
Twin pole (T.P.)

**Belt width:** 750mm (2' 6")
**Centres**: 1700mm (5' 7")





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# OPTIONS 2

### 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 |

### HOT/COLD CLIMATE OILS

Cold climate oils - (recommended for ambient temperatures between -20 to +30ºC) - 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 +50ºC)

### OPTIONAL EXTRAS

- Deflector plate
- Jaw liner options
- Toggle option: 570mm (22$^{1/2}$'') for increased CSS
- Toggle option: 610mm (24'') for min recommended CSS
- Extended hopper flares
- Optional grizzly spacing
- Independent pre-screen
- Belt weigher
- Product conveyor raise / lower
- Dust cover on product conveyor
- Ripstop belt on product conveyor
- Extended product conveyor
- Bypass conveyor
- Extended bypass conveyor
- Magnet options
- Hot & cold climate oils
- Electrically driven water pump
- Radio remote system
- Powerscreen Pulse





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# POWERSCREEN PULSE

## RECORD, DISPLAY AND ANALYSE DATA:

### HIGH EFFICIENCY THROUGH PRECISE INFORMATION

Available online anywhere and at any time: comprehensive information on the GPS location, start and stop times, fuel consumption, tonnages, cone settings, wear ratings, operating hours, maintenance status, and much more.



**AVAILABLE ANYWHERE AND AT ANY TIME**

**DASHBOARD DISPLAY**

**FLEET OVERVIEW**

**WEEKLY REPORT DIRECT TO YOUR INBOX**

**GPS: MACHINE TRACKING**

**REPORTING**
UTILISATION, PERFORMANCE & PART SPECIFIC



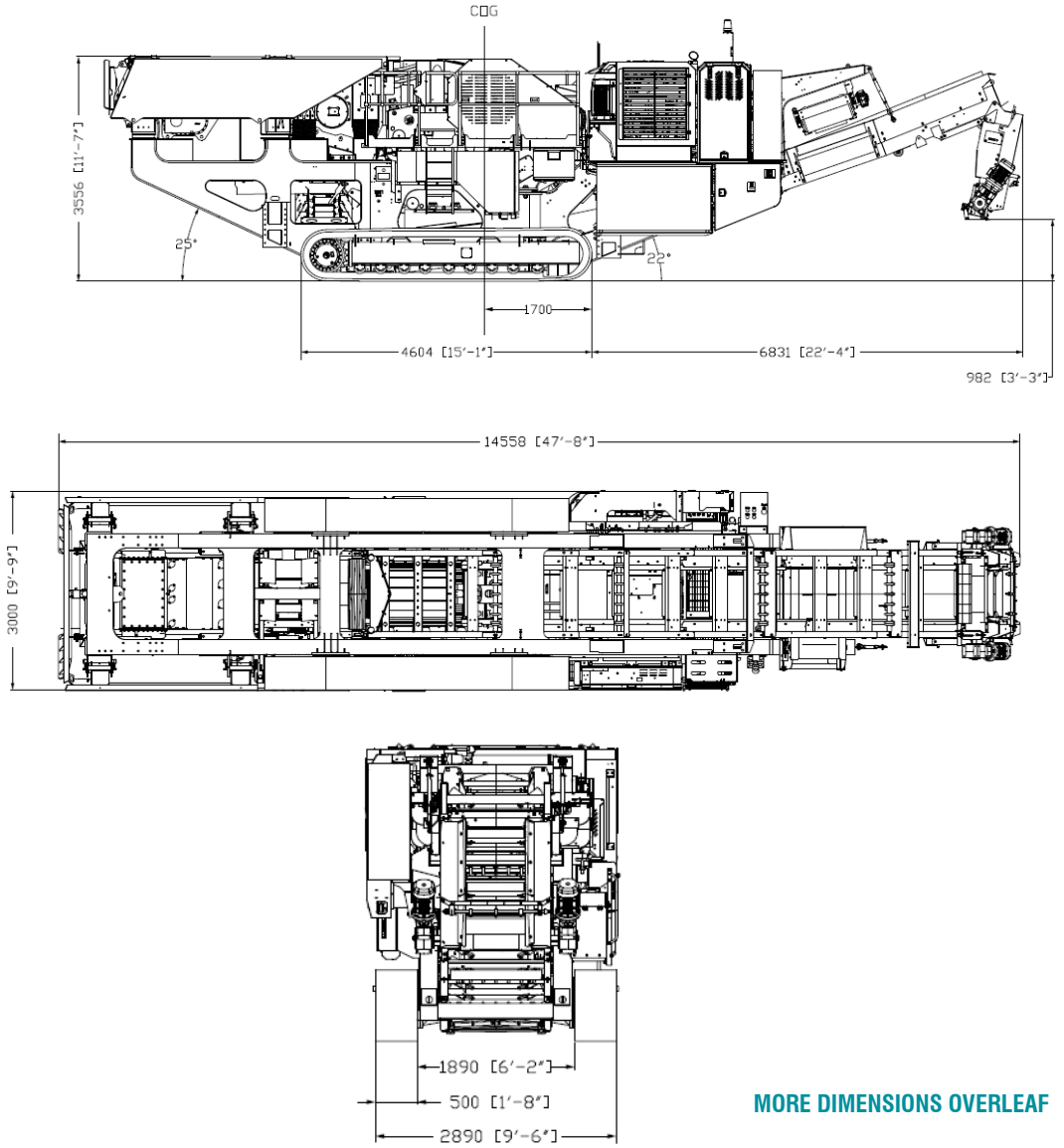


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# DIMENSIONS

Figure 1: Premiertrak 420E
Transport Position




MORE DIMENSIONS OVERLEAF

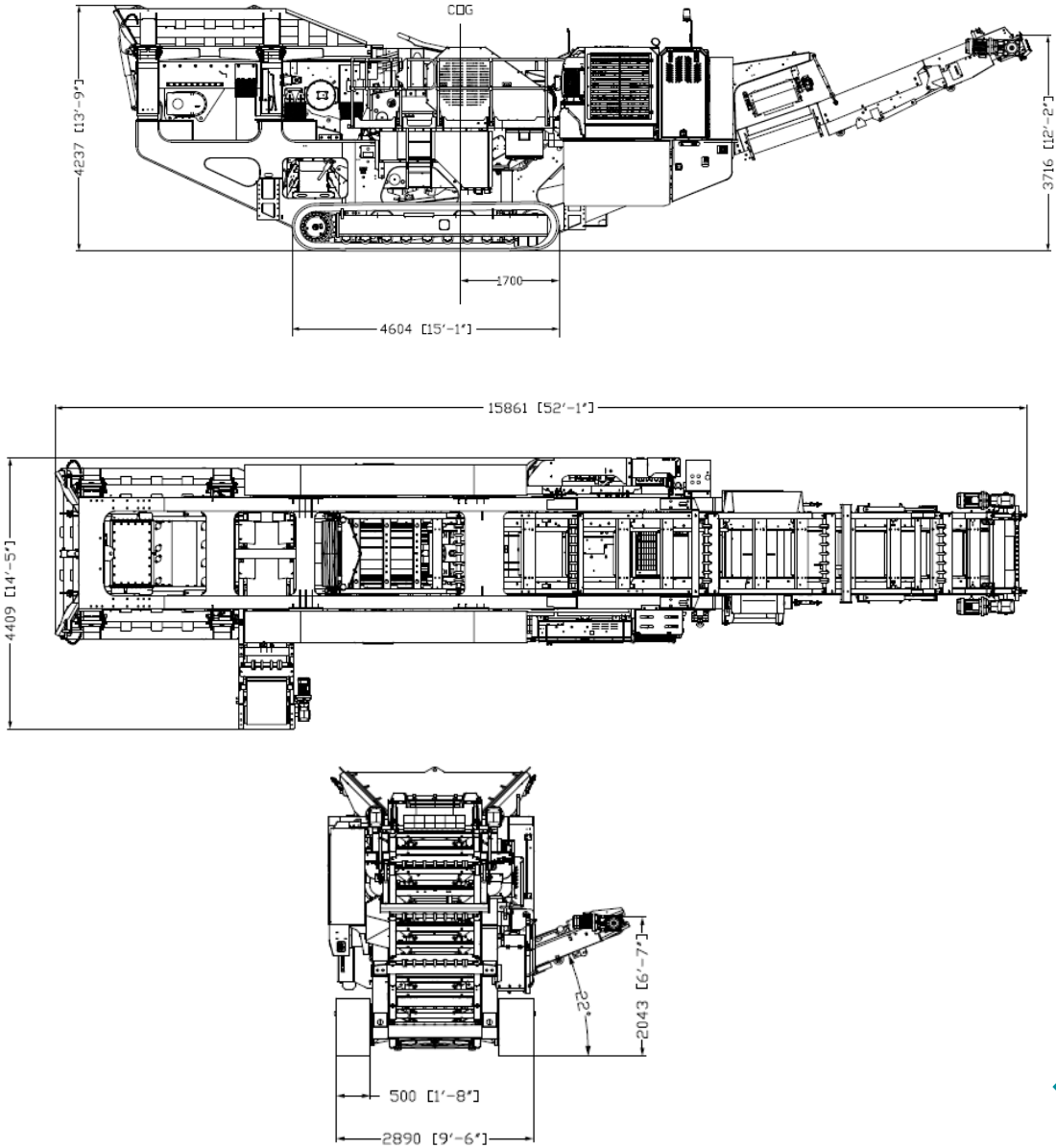


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# DIMENSIONS

Figure 2: Premiertrak 420E
Working Position



**Powerscreen equipment complies with CE requirements.**

Please consult Powerscreen if you have any other specific requirements in respect of guarding, noise or vibration levels, dust emissions, or any other factors relevant to health and safety measures or environmental protection needs. On receipt of specific requests, we will endeavour to ascertain the need for additional equipment and, if appropriate, quote extra to contract prices.

All reasonable steps have been taken to ensure the accuracy of this publication, however due to a policy of continual product development we reserve the right to change specifications without notice.

It is the importers' responsibility to check that all equipment supplied complies with local legislation regulatory requirements.

Plant performance figures given in this brochure are for illustration purposes only and will vary depending upon various factors, including feed material gradings and characteristics. Information relating to capacity or performance contained within this publication is not intended to be, nor will be, legally binding.

# GET IN TOUCH

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