

# C-1540 Cone Crusher



## Key Features:

- ▶ Proven Terex® 1000 Cone Chamber
- ▶ Accepts clean all in feed
- ▶ High efficiency roller bearing design
- ▶ Hydraulic CSS adjustment while crushing
- ▶ Hydrostatic variable speed drive to cone chamber to optimise production
- ▶ High throughput capacity up to 260tph (287stph)
- ▶ Unique metal detection and purge system to remove a percentage of fines from the crushing chamber
- ▶ Optional independent pre-screen to optimise plant capacity
- ▶ Variable feeder speed control to maintain choke feed conditions
- ▶ Simple easy to remove cone hopper for fast liner change out
- ▶ Low feed height to hopper, high main belt discharge height
- ▶ Catwalk access to all service points

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When aggregate shape is paramount the Terex® Finlay C-1540 leads the way. Featuring direct variable hydrostatic drive, automatic tramp relief and hydraulically adjustable closed side setting the proven Terex @ 1000 cone chamber delivers efficient production and high material reduction ratio's.

## Powerpack

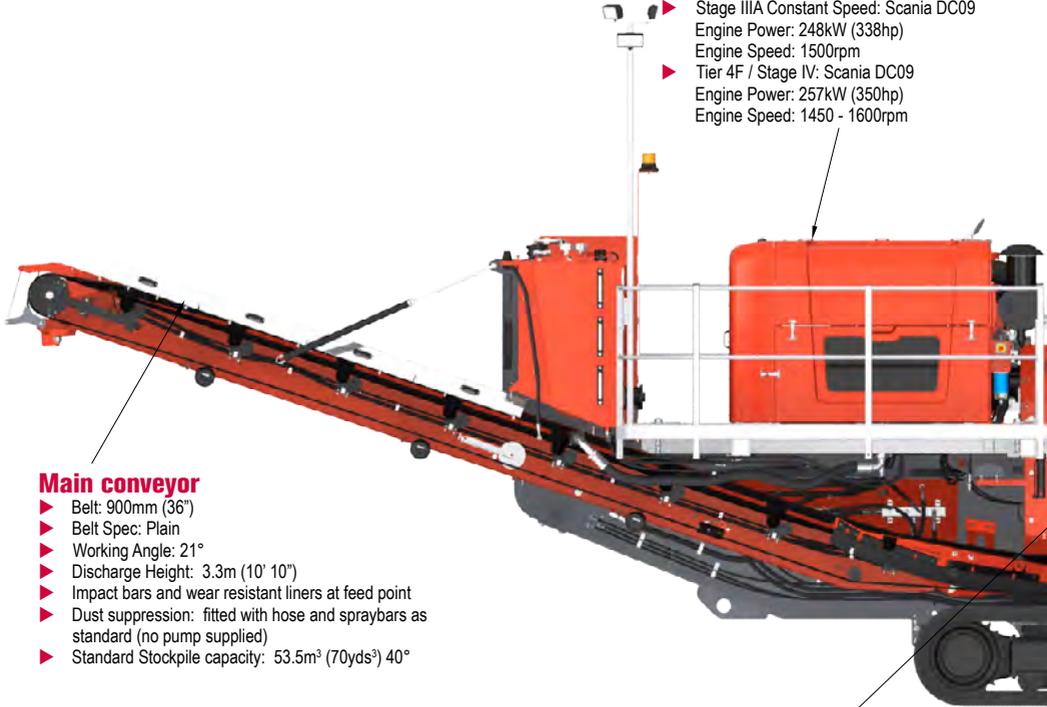
- ▶ Tier 3 / Stage IIIA : Caterpillar C9 ACERT  
Engine Power: 261kW (350hp)  
Engine Speed: 1750 - 1900rpm
- ▶ Stage IIIA Constant Speed: Scania DC09  
Engine Power: 248kW (338hp)  
Engine Speed: 1500rpm
- ▶ Tier 4F / Stage IV: Scania DC09  
Engine Power: 257kW (350hp)  
Engine Speed: 1450 - 1600rpm

## Main conveyor

- ▶ Belt: 900mm (36")
- ▶ Belt Spec: Plain
- ▶ Working Angle: 21°
- ▶ Discharge Height: 3.3m (10' 10")
- ▶ Impact bars and wear resistant liners at feed point
- ▶ Dust suppression: fitted with hose and spraybars as standard (no pump supplied)
- ▶ Standard Stockpile capacity: 53.5m<sup>3</sup> (70yds<sup>3</sup>) 40°

## Cone chamber

- ▶ Terex 1000mm (40") cone chamber
- ▶ Cone counter shaft Speed Range: 915 - 1015 rpm
- ▶ Variable speed control settings for producing a quality aggregate
- ▶ 'On the fly' hydraulically adjustable closed side setting with monitoring system



## OVERVIEW

### Hopper / Feeder

- ▶ Hopper capacity: 5m<sup>3</sup> (6.5yd<sup>3</sup>)
- ▶ Hopper fabricated in 10mm mild steel plate with 10mm wear resistant steel liners at input point
- ▶ Width at rear: 2.45m (8')
- ▶ Belt Spec: Plain
- ▶ Belt Width: 1.05m (42")
- ▶ Speed range: variable, 0 – 31 m/min (0 – 101 ft/min)
- ▶ Working Angle: 21°
- ▶ Drop down rear door for auxiliary crusher feed
- ▶ Crash bar fitted to reduce impact load on feed conveyor



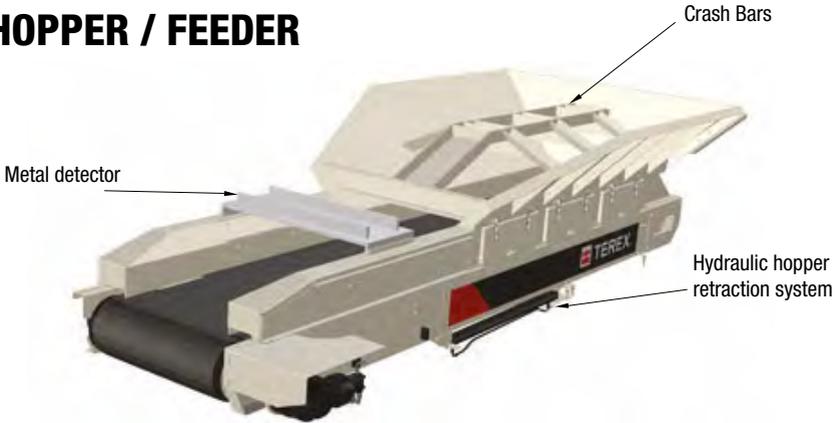
### Metal Purge Chute

### Undercarriage

- ▶ Shoe Width: 400mm (15")
- ▶ Sprocket Centres: 3.24m (10' 8")
- ▶ Tracking Speed: 1.3 km/h
- ▶ Gradeability: 25°

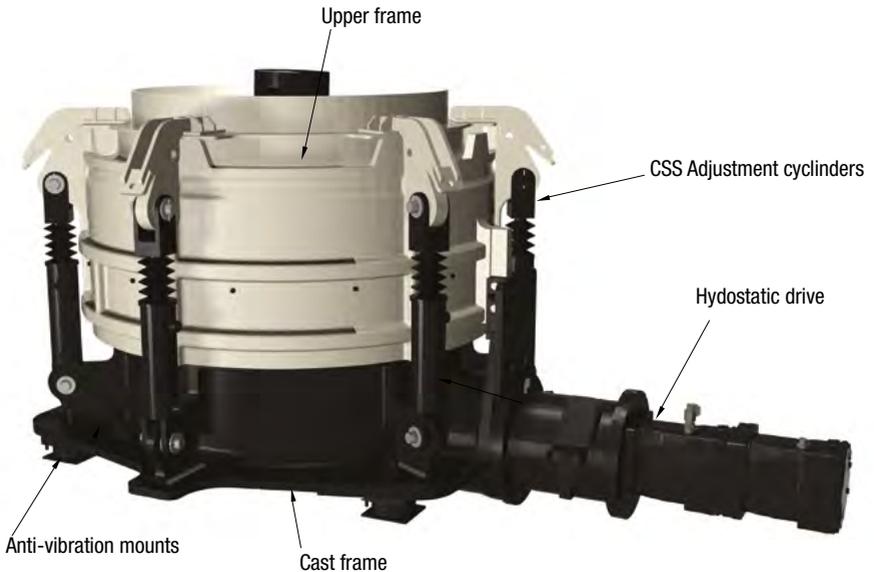
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## HOPPER / FEEDER



STANDARD FEATURES	BENEFITS
Hopper capacity 5m <sup>3</sup> (6.5yd <sup>3</sup> ), with impact reducing cross bars and rollers	<ul style="list-style-type: none"> <li>Rubber lagged Impact rollers reduce noise and belt wear</li> <li>Crash bar allows dump feeding with loading shovel</li> <li>Larger capacity than 4.4m hopper on Powerscreen Automax 1000</li> <li>Low level drop down feed point assists feeding from an upstream crusher</li> <li>Wear-resistant liner plates increases the hopper wear life when crushing abrasive material</li> </ul>
Hydraulic hopper retraction system	<ul style="list-style-type: none"> <li>Movable hopper directs feed onto cone centre reducing uneven wear in chamber</li> <li>Hydraulic action is safe, easy and simple to position from transport to working position</li> <li>Hydraulic movement saves time and manpower</li> </ul>
Metal detection system on feed belt with 'auto-stop' feature	<ul style="list-style-type: none"> <li>Detects steel and manganese steel hidden in the feed material</li> <li>Protection of cone chamber from tramp metal by automatically stopping the feed belt</li> </ul>
Controllable discharge system to purge metal contaminants from feeder	<ul style="list-style-type: none"> <li>No need to physically clear metal objects from feed belt. Operator can dump tramp metal feed to the side of machine via main control panel or via optional radio remote</li> <li>Clears multiple or consecutive pieces of tramp metal on same belt run</li> <li>Chamber protection and reset reduces plant downtime</li> </ul>
Heavy duty, high torque hydraulically driven feed belt 1050mm (42") wide	<ul style="list-style-type: none"> <li>Heavy duty, high torque, hydraulic drive can handle high loads</li> <li>Large diameter, rubber lagged drive drum to prevent belt slippage</li> <li>Automated variable speed ensures maximum output from plant and ensures the cone chamber is always choked</li> <li>Full length skirting reduces spillage and plant maintenance</li> <li>Ground level greasing to bearings on drive drum</li> </ul>

## CONE CHAMBER



STANDARD FEATURES	BENEFITS
Terex® 1000 Cone chamber, 1000mm (40") head diameter Long throw eccentric Medium Coarse concave (max feed size 160mm) fitted as standard	Combination of eccentric throw and cavity design gives this crusher high reduction ratios and large capacity for most applications Good ability to generate fines Unrestricted feed opening reduces blockages, bridging and maximises output
Level sensor fitted over inlet feedbox maintains optimum choked conditions	Choke feeding improves production, reduces wear on manganese, reduces shock loads on the bearings, reduces power requirements
Hydrostatic cone drive with advanced electronic speed control system	Powerunit operates constantly around peak power while allowing crusher speed to change Hydrostatic motors fitted directly to crusher drive shaft removing need for V-belts A speed sensor fitted to cone input drive shaft observes and maintains the crusher speed and also protects the crusher unit from overloading Variable speed control settings for producing a quality aggregate
Hydraulically adjustable closed size setting with monitoring system	Computer controlled CSS adjustment Mantle / Concave wear indicator CSS adjustment can occur while crushing
Overload protection with automatic reset	This allows the upper frame to lift up, so tramp metal and other un-crushables can pass. The system then automatically returns the upper frame to its original position

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## MAIN CONVEYOR

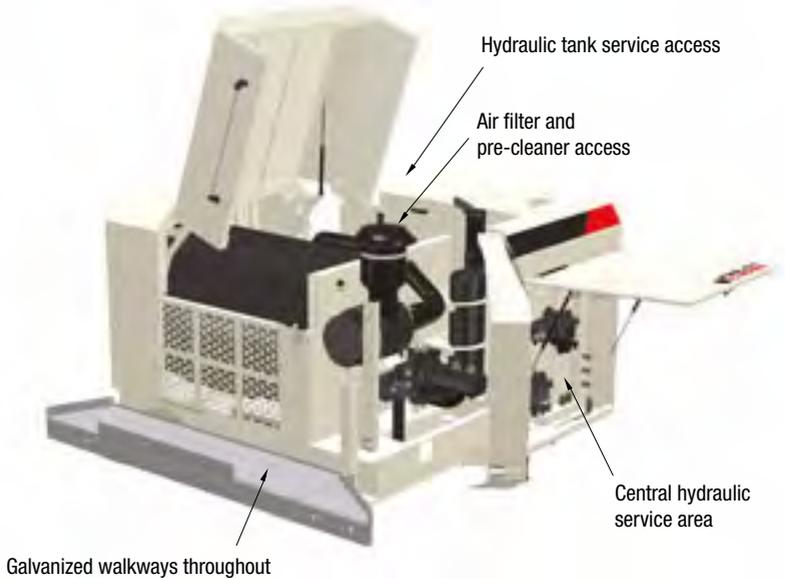


STANDARD FEATURES	BENEFITS
900mm (36") wide main conveyor belt	More space to crawl to tail drum to help with daily checks
High specification scraper at main conveyor head drum	Ensures site cleanliness Improved belt life and roller life Self tensioning reduces operator maintenance
Wear resistant liners at crusher discharge	5mm mild steel plate around discharge chute 15mm wear resistant plate fitted at impact point Impact bars directly under crusher discharge point
Easy maintenance	Full length skirting reduces spillage and plant maintenance Ground level greasing to bearings on drive drum
Dust suppression system	Spray bars help reduce dust emissions

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## POWER UNIT

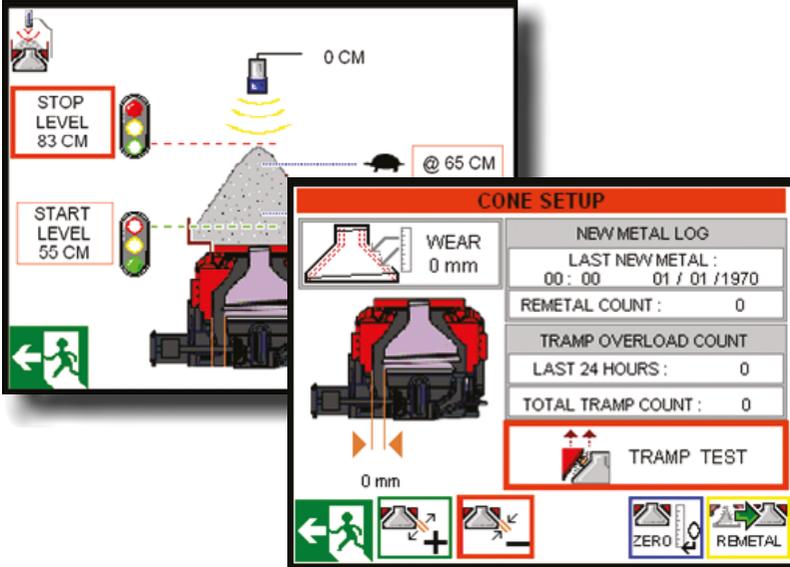
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Stage IIIA Constant Speed: Scania DC09 248kW (338hp)  
Tier 4F / Stage IV: Scania DC09 257kW (350hp)



STANDARD FEATURES	BENEFITS
Closed loop Linde hydrostatic transmission for crusher drive	Fixed displacement gear pumps provide power to drive all conveyors, tracks, optional pre-screen and hydraulic cylinders. They also provide power to the lubrication oil pump and supplies the crusher hydraulics and adjustment system
Excellent service access	Full catwalk access on both sides of powerunit Removable access panels for engine maintenance Hydraulic tank suction filters easily accessible from top without draining oil tank

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## CONTROL SYSTEM



STANDARD FEATURES	BENEFITS
Advanced CAN-bus compliant control system	Easy to find faults and configure plant parameters on screen Component monitoring and electronic plant control
User friendly control panel	Large colour display screen with simple icons used to guide operators Simple selection of feeder and crusher speeds Main menu consists of 8 user modes to monitor, set-up and operate the plant Control panel mounted inside a lockable control cabinet
Hand held track control set with 5m connection lead	Operation and positioning from a safe distance Optional radio remote can operate and move machine from a distance

<b>ADDITIONAL FEATURES</b>	<b>BENEFITS</b>
Safety features	Galvanised catwalk c/w handrail, kick board and access ladders provide safe, all-round access to key areas of the plant. Safety guards in compliance with machinery directive Catwalks are accessible from both sides of machine Self-closing gates and double row hand rails ensure safe working areas Emergency stops accessible around the machine
Heavy duty track unit	Track length length 3.8m (12' 6"), pad width 500mm (20") provides strength & stability during operation Single speed tracks with soft start provides control in positioning & transport movement
Multiple easy access low level greasing points	Easy maintenance of areas with difficult access
Dust suppression system (manifold, 3 bars, piping)	Reduced impact to environment by reducing dust emissions
Interlink system for Upstream/ Downstream compatibility with other crushers and screeners	Operation of crushing trains can be controlled to stop overspilling if another crusher stops working

<b>OPTIONAL FEATURES</b>	<b>BENEFITS</b>
Hydraulically driven water pump for dust suppression. (Requires 1 x auxiliary drive*)	Water pump can be fitted to aid dust suppression system set up
Main conveyor dust cover	Covers main conveyor to reduce dust emissions
Electric pump refuelling kit	Makes refuelling on site very easy and reduces spillage that occurs when using a conventional funnel Option is integrated into the plant
Special Paint Colour (if different from Finlay Orange RAL 2002). RAL must be provided	Customised livery for specific customer colours
Manual extensions for feed hopper (total capacity 8m <sup>3</sup> / 10.4yd <sup>3</sup> )	Extensions mean a loading shovel can fill the hopper from the rear (Extended width 3.7m) Large standard feed hopper means that these are rarely required
Radio remote System: Operational controls of machine (auto start/stop) & track movement	Optional radio remote can operate and move machine from a distance

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OPIONAL	BENEFITS
Belt weigher for main conveyor	Ability to manage production, measure capacity and log data. Modem can be fitted to supply data to external laptop (optional) Printout of production data is possible (optional)
Stockpiler drive. (Requires 1 nr auxiliary drive*)	Ability to increase the stockpile capacity using an additional Stockpiler / Stacker
Lighting mast for catwalk	Visibility during night operation
Hot climate lubrication kit	Higher oil viscosity assists operation in hot climate where ambient air temperatures are +30°C
Hot climate cooler pack. (Requires 1 nr auxiliary drive*)	Using an oil cooler reduces oil temperatures in hot climates where ambient air temperatures are +40°C.
Cold climate lubrication kit	Lower oil viscosity assists operation in cold climate where ambient air temperatures are -10°C
Terex 1000 Extra coarse concave - max feed size 195mm	Different set-up configurations and metalurgies can be used to reduce wear costs and optimise aggregate production. (Check lead-time on options)
Terex 1000 Coarse concave - max feed size 175mm	
Terex 1000 Sand concave - max feed size 63mm This option must also use the Short throw eccentric option	
Short throw eccentric (check leadtime)	

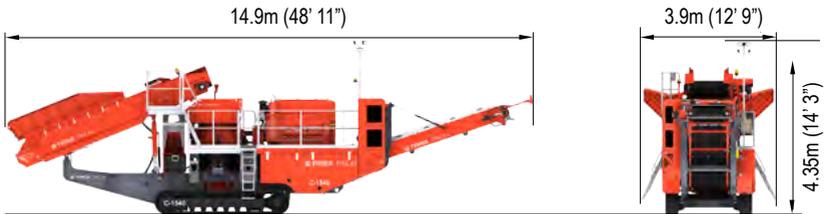
\* NOTE: ONLY 2 x AUXILIARY DRIVES ARE AVAILABLE

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## Transport Dimensions



## Working Dimensions



## Maximum Plant Capacity:

TPH\*

US TPH\*

260

287

**Machine Weight: 33,350kg (73,524lbs)**

without options

**34,200kg (75,398lbs)**

with optional hopper extensions and main conveyor dust hood and covers

\* Material is based on Limestone with bulk density 1.6T/m<sup>3</sup>. Where available optional Pre-screen is used. Maximum capacity uses optimal mesh sizes and material conditions.

