

**INTELLIGENT**  
SOLUTIONS PROVIDER

**Trimax**  
Machinery  
SIMPLY BETTER CRUSHERS



**DIESEL - ELECTRIC DRIVE**



**HIGH**  
**CAPACITY**  
**MOBILITY**  
**COST-EFFICIENCY**

**CHALLENGER CMC**  
MOBILE CRUSHING & SCREENING PLANTS

# CHALLENGER CMC

## MOBILE CRUSHING & SCREENING PLANTS

Since 2008, Trimax Machinery has established a reputation for high performance products that deliver practical solutions to solve today's problems.

### DESIGN BASIS

Continuing with this tradition, our Trimax Challenger CMC Mobile Crushing & Screening Plants incorporate high quality, state-of-the-art technologies with superior in-built robustness and inherent practicality. That's precisely why they were designed.

### MAXIMUM FLEXIBILITY

All plants in the Trimax Challenger CMC line are designed for maximum flexible use with regards to the type of feed

material. They can master all varieties of changing application conditions present. Moving from job site to job site without any problems, ranging from processing natural stone to recycling.

### RAPID DEPLOYMENT & SET-UP

Let's face it. Mobile plants are a huge capital investment. But, perhaps one of the best features of Trimax Challenger CMC Mobile Crushing & Screening Plants is that they can either be repidly deployed once they arrive on-site or be repositioned anywhere within a quarry site, be set-up within minutes, and start earning your return on capital investment.



## COMMON FEATURES & FUNCTIONALITIES

# Trimax Machinery



### LARGE FEED HOPPER

Maximised productivity and trouble-free feeding thanks to the high capacity feed hopper. In addition, in some models, the hopper volume may be optionally increased by hydraulically extending the hopper walls.



### DIESEL - ELECTRIC DRIVE

With a high performance and powerful Cummins® diesel engine onboard electrically driving the crushers and conveyors, results in a highly reliable, operationally economical, and environmentally conscious crushing & screening operation.



### SELF-CLEANING OVERBAND MAGNET

Installed as standard preventive safety equipment in all Trimax Challenger CMC Mobile Jaw Crushers and Horizontal Shaft Impactors to effectively remove unwanted tramp iron from the main discharge conveyor, the self-cleaning overband magnet ensures uninterrupted optimal production of the entire crushing line.



### INTELLIGENT PLC WITH WIRELESS REMOTE

Simple yet intuitive PLC system guarantees the user optimal control over the initial set-up once the plant arrives on site and during subsequent operation, even via a wireless remote.



### HEAVY DUTY TRACKS

Reliable heavy duty tracks that offer superior grip in muddy conditions enable stability and flexible mobility within the site.



### ROBUST STRUCTURAL STEEL CHASSIS

Strong yet compact steel chassis is crucial for the plant to withstand all the tough load-bearing pressures it expects to encounter during normal operations.

# CHALLENGER CMC

JAW CRUSHER



### FEED HOPPER

Feeder Size  
**1,100mm x 4,000mm**

Volume  
**4.8 m<sup>3</sup>**

Maximum Feed Height  
**3,974mm**

### MAIN CONVEYOR

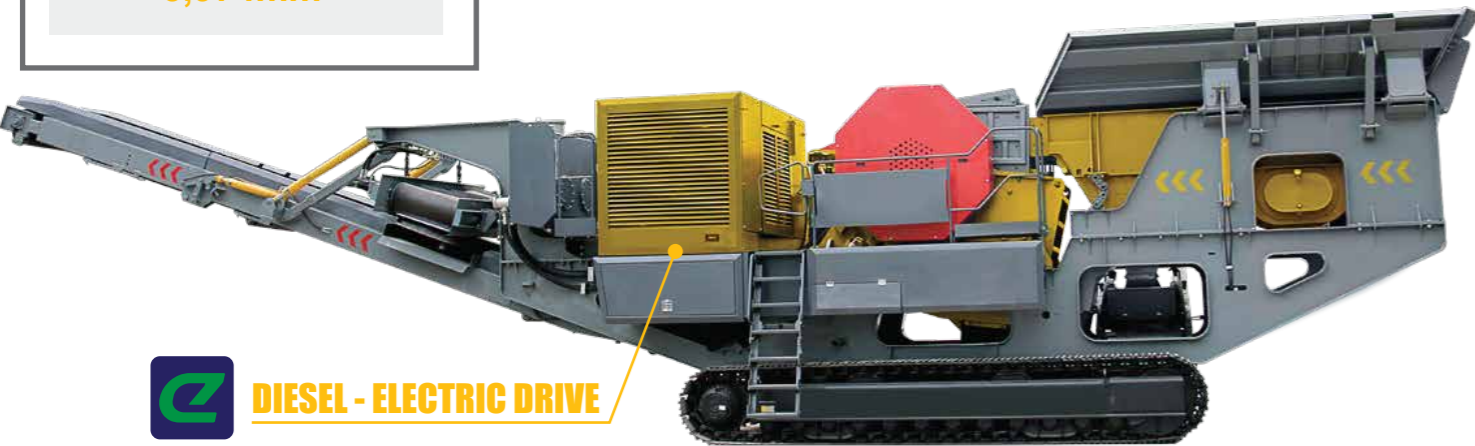
Discharge Height  
**4,000mm**

Belt Width  
**1,000mm**

### SIDE CONVEYOR

Discharge Height  
**2,255mm**

Belt Width  
**650mm**



**DIESEL - ELECTRIC DRIVE**

**BUILT TOUGH**

**TOUGH BY DESIGN**

In almost all scenarios, Trimax Challenger CMC Jaw Crushers will likely be the first machine to be used in any crushing operation. That is why we understand how important it is for our Trimax Challenger CMC Jaw Crushers to be fundamentally built tough and have an uncompromising design more than adequate to handle any type of crushing condition it might encounter.

**ACTIVE CSS CONTROL ADJUSTMENT**

In Trimax Challenger CMC Jaw Crushers, the Active CSS Control Adjustment works the same way as the hydraulic wedge CSS Adjustment system present in stationary Trimax Trent Jaw Crushers, which moves a pair of wedges to either increase or decrease the closed side setting. The only difference is that this is connected to the hydraulic system.

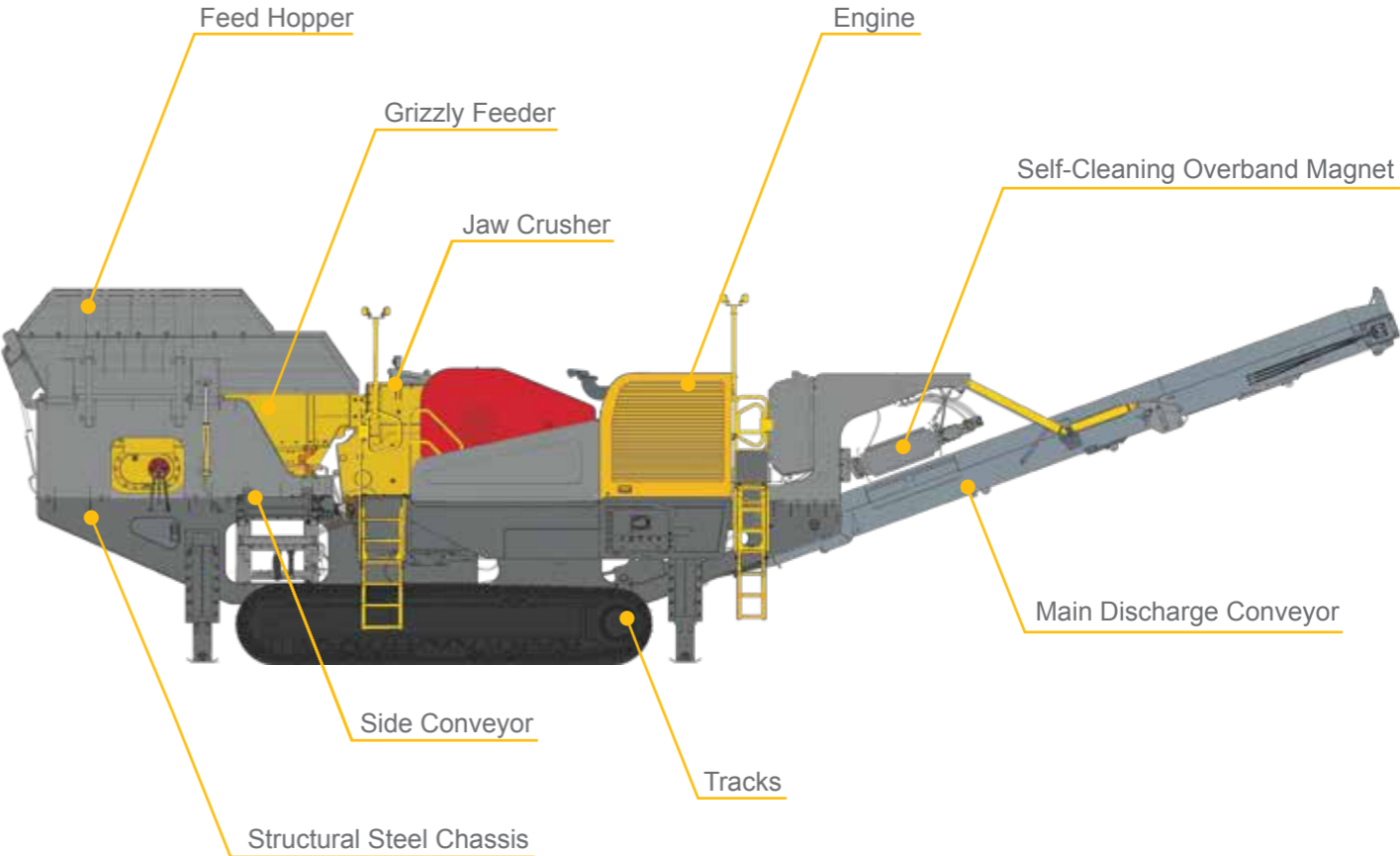
The hydraulic oil pressure moves the cylinder, which increases or decreases the closed side setting. The closed side setting can be adjusted when the jaw crusher is at rest, idling, or during crushing.

**CONTINUOUS CRUSH SYSTEM**

All Trimax Challenger CMC Jaw Crushers are fitted with the Continuous Crush System as a standard feature. The Continuous Crush System is an unblocking system designed to handle bridging, reversing the crusher to clear the obstruction, minimising stoppages.

The Continuous Crush System also acts as a preventive safety feature. If there are any uncrushable objects in the crushing chamber, the Continuous Crush System activates the relief valves and the Closed Side Setting to open. The uncrushable object is discharged. The Closed Side Setting then returns to its original setting.

JAW CRUSHER	CMC 96	CMC 106	CMC 116
Crusher Feed Opening	930mm x 580mm	1,060mm x 700mm	1,150mm x 760mm
Maximum Feed Size	480mm	600mm	640mm
Closed Side Setting (CSS)	60 - 175mm	70 - 200mm	70 - 200mm
Capacity Approximately Up To	335 mtph	480 mtph	520 mtph
Engine / Motor Output	300 kW	300 kW	350 kW
Approximate Weight	47,300 kg	54,100 kg	66,100 kg
Transport Dimensions (mm)	14,109 x 2,960 x 3,625	14,388 x 2,960 x 3,625	14,888 x 3,080 x 3,730
Working Dimensions (mm)	16,650 x 4,530 x 4,260	16,929 x 4,530 x 4,527	17,129 x 4,650 x 4,637



CHALLENGER CMC  
CONE CRUSHER



DIESEL - ELECTRIC DRIVE



FEED HOPPER

MAIN CONVEYOR

OPTIONAL ADD-ON

Feeder Size  
**1,200mm x 6,100mm**

Volume  
**6.3 m³**

Load Height  
**3,730mm**

Belt Width  
**1,000mm**

Hanging Screen Size  
**1,500mm x 3,600mm**

Discharge Belt Width  
**1,200mm**

Transfer Conveyor Width  
**650mm**

Return Conveyor Width  
**500mm**

CONE CRUSHER	300GS	300G	400GS	400G
Cone Crusher Model	NSX300	NHX300	NSX400	NHX400
Maximum Feed Size	360mm	90 - 190mm	450mm	110 - 210mm
Closed Side Setting (CSS)	25 - 51mm	10 - 38mm	32mm - 54mm	13 - 38mm
Capacity Approximately Up To	180 - 315 mtph	65 - 210 mtph	335 - 410 mtph	105 - 305 mtph
Engine / Motor Output	400 kW			
Approximate Weight	45,100 / 53,700 kg	43,300 / 51,800 kg	54,300 / 63,900 kg	52,200 / 61,000 kg
Transport Dimensions (mm)	17,150 x 3,119 x 3,800			
Working Dimensions (mm)	18,130 x 3,560 x 4,965		18,940 x 3,560 x 4,706	



BUILT AROUND OUR SUCCESS

Trimax Challenger CMC Cone Crushers are built around our reliable and high capacity NSX / NHX Cone Crushers, commonly used for secondary and tertiary crushing in multi-stage applications.



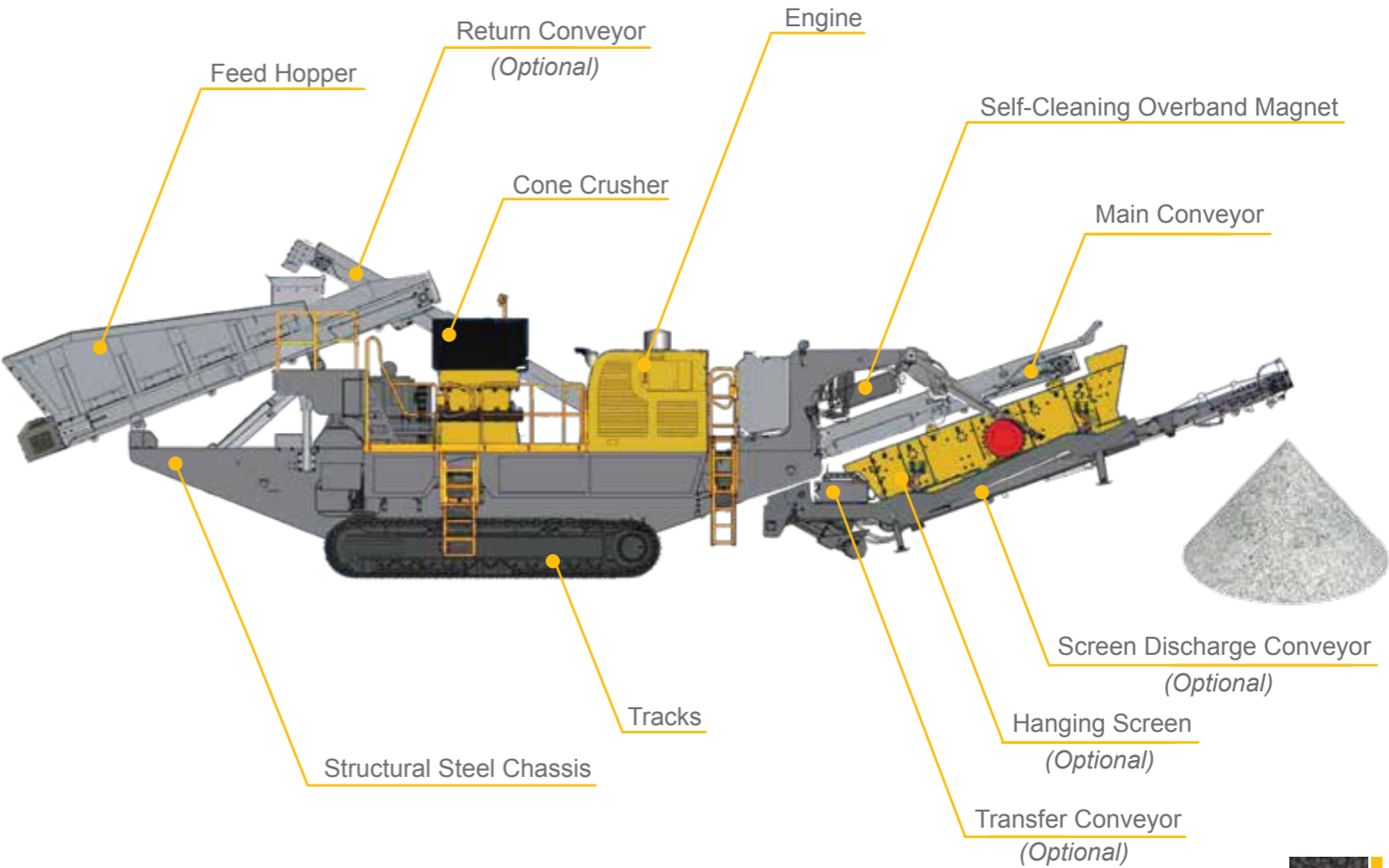
AUTOMATED CONTROL SYSTEM

With the Trimax Automated Control System (ACS), automated real-time CSS monitoring & control ensures that your Trimax Challenger CMC Cone Crusher is constantly operating at optimal levels and producing the best possible product shape.



RECIRCULATORY CRUSHING

For added versatility, an optional single-deck hanging screen may be installed. A transfer conveyor and return conveyor conveys the retained crushed material back to the cone crusher to be recrushed. Thus, achieving a recirculatory closed-circuit crushing system whereby high production of quality end-products and accurate sizing is a key requirement.



CHALLENGER CMC  
HORIZONTAL SHAFT IMPACTOR

Trimax  
Machinery



 DIESEL - ELECTRIC DRIVE

 HORIZONTAL SHAFT IMPACTOR	CMC 1310	CMC 1214
HSI Model	PFY1310	PFY1214
Maximum Feed Size	265mm	304mm
Discharge Size	30 - 45mm	35 - 45mm
Capacity Approximately Up To	165 - 200 mtp/h	220 - 260 mtp/h
Engine / Motor Output	350 kW	400 kW
Approximate Weight	50,000 / 58,500 kg	56,500 / 65,000 kg
Transport Dimensions (mm)	17,150 x 3,119 x 3,800	
Working Dimensions (mm)	18,940 x 3,560 x 4,706	

FEED HOPPER

MAIN CONVEYOR

OPTIONAL ADD-ON

Feeder Size

1,100mm x 4,000mm

Volume

4.5 m³

Maximum Feed Height

4,010mm

Belt Width

1,000mm

SIDE CONVEYOR

Belt Width

500mm

Hanging Screen Size

1,500mm x 3,600mm

Discharge Belt Width

1,200mm

Transfer Conveyor

650mm

Return Conveyor

500mm



VERSATILE ALL - IN - 1 MACHINE

Besides being more than capable to crush medium hard rock types as well as all rock-based recycled materials, the Trimax Challenger CMC Horizontal Shaft Impactor truly excels at trouble-free processing of recycled materials containing rebar. Making it an ideal versatile all-in-one machine for both quarry-face in-pit crushing and contract crushing.



3 CRUSHING ZONES

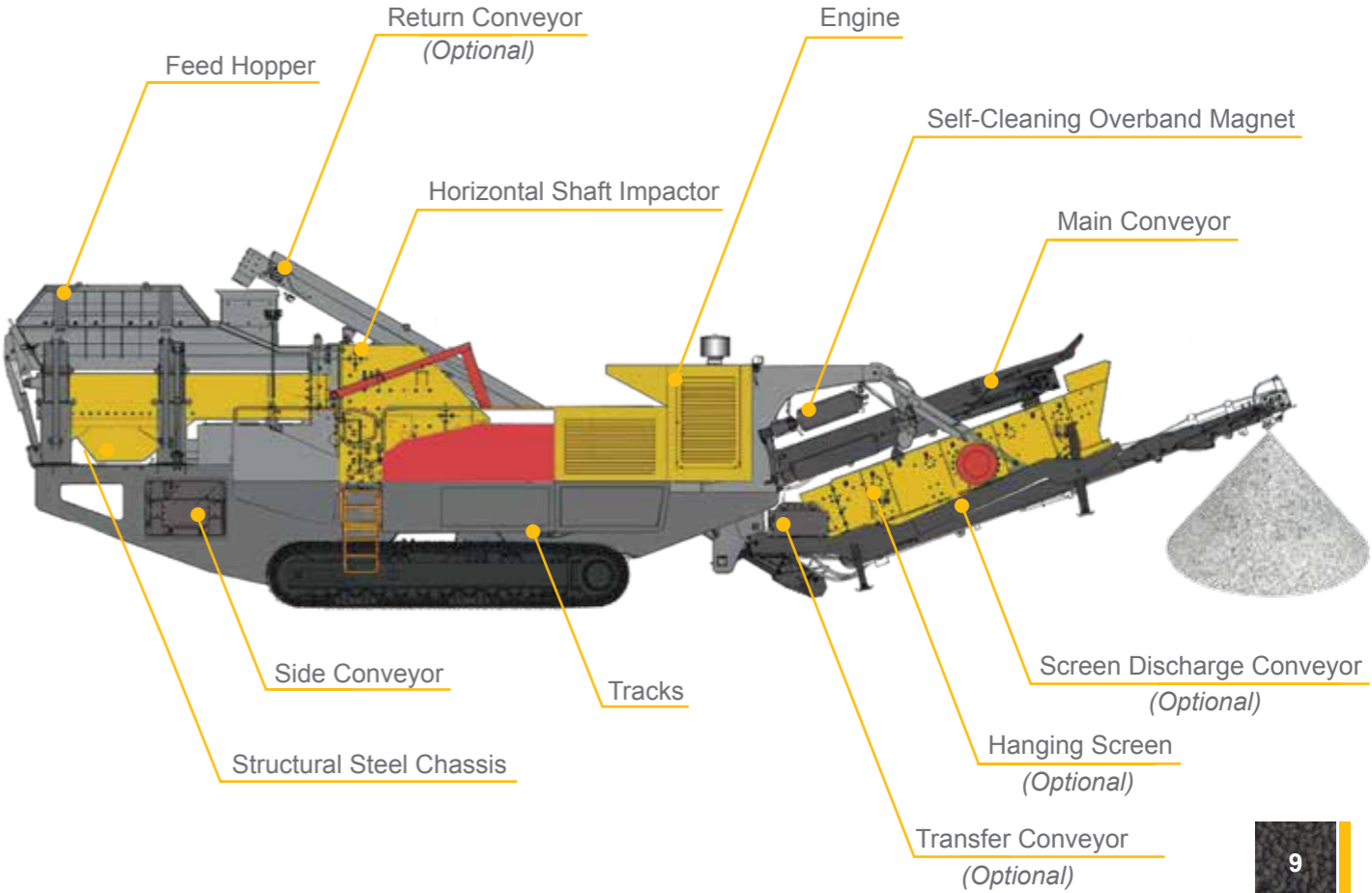
What sets the Trimax Challenger CMC Horizontal Shaft

Impactor apart from the rest of the competition is its innovative three (primary, secondary, & tertiary) crushing zones within its crushing chamber design, enabling it to achieve higher discharge size control and accuracy, higher reduction ratios, high production volumes, and better shaping.



RECIRCULATORY CRUSHING

For added versatility, an optional single-deck hanging screen may be installed. A transfer conveyor and return conveyor convey the retained crushed material back to the cone crusher to be re-crushed. Thus, achieving a recirculatory closed-circuit crushing system whereby high production of quality end-products and accurate sizing is a key requirement.



# CHALLENGER CMC

VERTICAL SHAFT IMPACTOR



### FEED HOPPER

Feeder Size  
**1,200mm x 6,100mm**

Volume  
**6.3 m³**

Load Height  
**3,730mm**

### MAIN CONVEYOR

Belt Width  
**1,000mm**

### SIDE CONVEYOR

Belt Width  
**650mm**

### OPTIONAL ADD-ON

Hanging Screen Size  
**1,500mm x 6,000mm**

Discharge Belt Width  
**1,200mm**

Transfer Conveyor Width  
**650mm**

Return Conveyor Width  
**500mm**



### AUTOMATED CONTROL SYSTEM

The Trimax Automated Control System (ACS) ensures optimal performance of your VSI. It is precisely designed to meet your expectations and requirements for consistent performance, safety, and easy control of the VSI's parameters.

It monitors the bearings' temperatures and vibration levels. An alarm will be raised if any faults are detected. In severe cases, an auto-stop function will be activated in order to protect the VSI from damage.



### RECIRCULATORY CRUSHING

For added versatility, an optional single-deck hanging screen may be installed. A transfer conveyor and return conveyor convey the retained crushed material back to the VSI to be recrushed. Thus, achieving a recirculatory closed-circuit crushing system.



### VERTICAL SHAFT IMPACTOR

#### CMC 850 II

#### CMC 1000 II

#### VSI Model

PLS - 850 II

PLS - 1000 II

#### Maximum Feed Size

50mm

60mm

#### Capacity Approximately Up To

215 mtph

360 mtph

#### Engine / Motor Output

350 kW

#### Approximate Weight

51,500 kg

56,500 kg

#### Transport Dimensions (mm)

19,520 x 3,850 x 3,850

#### Working Dimensions (mm)

19,520 x 4,694 x 5,271



### HIGH QUALITY CUBICAL AGGREGATES

Trimax Challenger CMC Vertical Shaft Impactors are commonly used for the production of road base, high quality manufactured sand, and highly valued cubical aggregates.

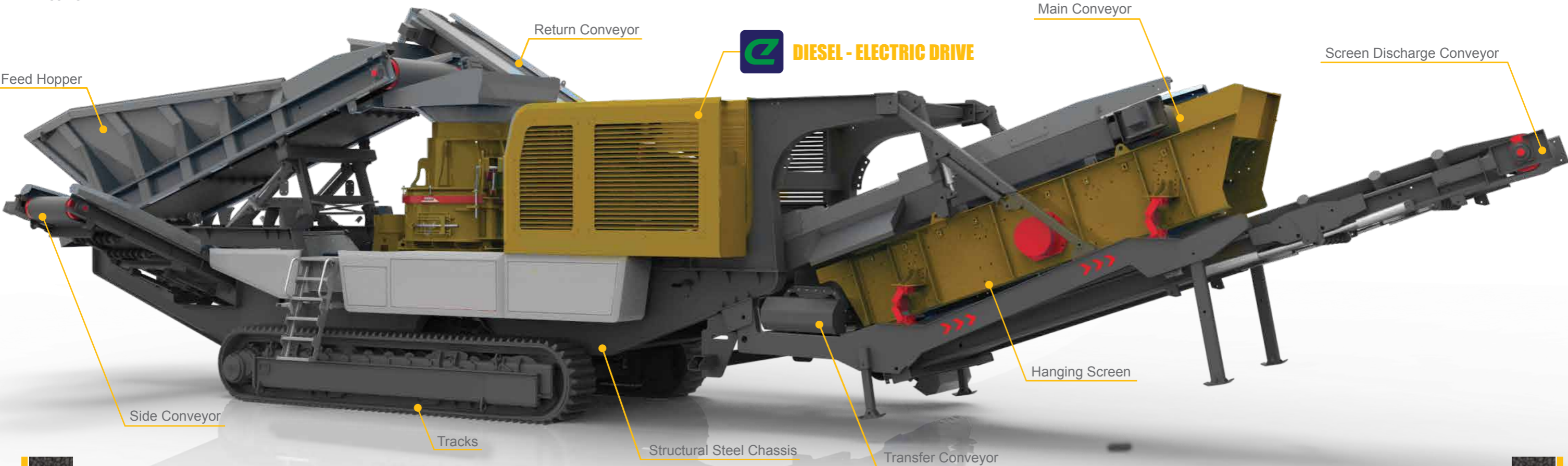


### EASY MAINTENANCE

For easy maintenance, the Trimax Challenger CMC Vertical Shaft Impactors come standard with hydraulic roof lifters, enabling quick inspection & changing of internal wear parts.



### DIESEL - ELECTRIC DRIVE



CHALLENGER CMC  
VIBRATING SCREEN



 **DIESEL - ELECTRIC DRIVE**

VIBRATING SCREEN	CMC 1560	CMC 1860	CMC 2060
Vibrating Screen Model	1,500mm x 6,000mm	1,800mm x 6,000mm	2,000mm x 6,000mm
Number of Screen Decks	1, 2, or 3 Decks		
Capacity Approximately Up To	300 mtph	375 mtph	450 mtph
Engine / Motor Output	100 kW		150 kW
Approximate Weight	38,200 kg	38,500 kg	38,800 kg
Transport Dimensions (mm)	17,050 x 2,880 x 3,706	17,050 x 3,180 x 3,706	17,050 x 3,380 x 3,706
Working Dimensions (mm)	18,578 x 18,654 x 6,480	18,578 x 18,954 x 6,480	18,578 x 19,154 x 6,480

 **QUICK RELEASE PIN & WEDGE SYSTEM**



All Trimax Challenger CMC Vibrating Screens incorporate a user friendly quick release pin & wedge system, allowing faster screen media changes. With only a hammer required for changing screen media, this system greatly reduces down-time.

 **OPTIMISED FEEDING & SCREENING**

Every care & consideration has been taken into account in the design of the Trimax CMC Vibrating Screen in order to optimise its feeding and screening capacity and efficiency, ranging from the large feed hopper expandable up to 8.3m³, 1,200mm wide feed hopper conveyor for maximised feeding, large screening area, and high conveyor discharge heights.

**FEED HOPPER**

Standard Volume  
**6.2 m³**

Expandable Volume  
**8.3 m³**

**FEED HOPPER CONVEYOR**

Belt Width  
**1,200mm**

**SIDE CONVEYOR 1**

Belt Width  
**500mm**  
Discharge Height  
**4,858mm**

**SIDE CONVEYOR 2**

Belt Width  
**650mm**  
Discharge Height  
**4,858mm**

**SIDE CONVEYOR 3**

Belt Width  
**650mm**  
Discharge Height  
**4,858mm**

**MAIN DISCHARGE CONVEYOR**

Belt Width  
**1,200mm**  
Discharge Height  
**4,887mm**

# CHALLENGER CMC

## CRUSHING & SCREENING COMBINATIONS

All Trimax Challenger CMC Crushing & Screening Plants function well together as a comprehensive system for handling different processes and applications. An ideal crushing & screening plant is always achieved by means of plant equipment perfectly tuned to one another. Trimax Machinery can help you design and recommend a suitable combination of crushing & screening plants that is suitable for your specific requirements & applications. Speak to a Trimax representative or dealer about our various mobile & screening combinations.



Challenger CMC Jaw Crusher + Challenger CMC Vibrating Screen



Challenger CMC Vertical Shaft Impactor + Challenger CMC Vibrating Screen



Challenger CMC Jaw Crusher + Challenger CMC Cone Crusher + Challenger CMC Vibrating Screen



Challenger CMC Jaw Crusher + Challenger CMC Vertical Shaft Impactor + Challenger CMC Vibrating Screen



Challenger CMC Jaw Crusher + Challenger CMC Cone Crusher + Challenger CMC Vertical Shaft Impactor + Challenger CMC Vibrating Screen



Challenger CMC Jaw Crusher + Challenger CMC Horizontal Shaft Impactor + Challenger CMC Vertical Shaft Impactor + Challenger CMC Vibrating Screen

# Trimax Machinery

Trimax Challenger CMC 1214 Horizontal Shaft Impactor



Trimax Challenger CMC 1860 Vibrating Screen



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