

HIGH **CAPACITY**
MOBILITY
COST-EFFICIENCY

INTELLIGENT
SOLUTIONS PROVIDER



CHALLENGER CMC

MOBILE CRUSHING & SCREENING PLANTS

Trimax
Machinery
ADVANCING CRUSHING FOR THE *future*

CHALLENGER CMC

MOBILE CRUSHING & SCREENING PLANTS

Trimax
Machinery
ADVANCING CRUSHING FOR THE *future*

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 rapidly deployed once they arrive on-site, be set-up within minutes, and start earning your return on capital investment.

Since 2009, Trimax Machinery has established a reputation for high performance products that deliver practical solutions to solve today's problems in the quarrying industry.

DESIGN BASIS

Continuing with this tradition, 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.



CHALLENGER CMC

MOBILE CRUSHING & SCREENING PLANTS

Trimax
Machinery
ADVANCING CRUSHING FOR THE *future*

VALUE BUILT UPON QUALITY
FUTURE CONSTRUCTED BY CREDIBILITY



60+

Years of
Mechanical
Manufacturing
Experience

300+

Types of
Mechanical
Processing
Equipment

30+

Years of R & D
and Equipment
Manufacturing
Experience

5000 m²

Storage Space for
Material Stock

100+

Professionals from
Various
Specializations in the
Technical Team



Continuous
Improvement of
Quality &
Operations

ABOUT THE MANUFACTURER

Luoyang Dahua Heavy Industry Science & Technology Co., Ltd. is a high-tech enterprise specializing in the research, development, and manufacturing of crushing, grinding, screening, feeding, conveying, and environmental dust removal equipment of various minerals and aggregates. Its business scope also includes project planning, construction design, technological process design, intelligent automation control, and general project contracting & delivery.

The company has a strong technical team, reliable production and processing equipment, and a highly efficient service and construction team. From understanding customers' needs to meeting customers' needs, it is committed to combining advanced, practical, and efficient design concepts with reliable, high performance equipment, to provide customers with an integrated, comprehensive, flexible, intelligent set of crushing & screening solutions with a high performance-to-price ratio.

CHALLENGER CMC

MOBILE CRUSHING & SCREENING PLANTS

COMMON FEATURES & FUNCTIONALITIES



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.



SMART DIESEL-ELECTRIC DRIVE

Besides a high performance and powerful Weichai diesel engine onboard electrically driving the crushers and conveyors, CMC Mobile Crushing & Screening Plants are able to be connected to the government supplied electrical grid. This flexibility results in a highly reliable, operationally economical, and environmentally conscious crushing & screening operation.

WEICHA



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.



magnet ensures uninterrupted optimal production of the entire crushing line.



CHALLENGER CMC

MOBILE CRUSHING & SCREENING PLANTS

COMMON FEATURES & FUNCTIONALITIES

Trimax
Machinery
ADVANCING CRUSHING FOR THE future



INTELLIGENT PLC WITH WIRELESS REMOTE CONTROL

A 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 control.



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.



HEAVY DUTY TRACKS

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



SAFETY GUARDING

Safety guarding is provided for all flywheels and pulleys to prevent unnecessary accidents.



CHALLENGER CMC

MOBILE CRUSHING & SCREENING PLANTS



ABOUT WEICHAI ENGINES



Founded in 1946, Weichai Holding Group Co., Ltd. is a leading multinational industrial equipment group in China with significant influence in the world.

Weichai Holding Group now has Weichai Power, Shacman heavy-duty truck, Weichai Lovol smart agriculture, Fast transmission, Hande axle, Torch spark plug, Ferretti of Italy, KION of Germany, Linde Hydraulics of Germany, Dematic of the U.S., PSI of the U.S., Baudouin of France, Ballard of Canada and other well-known brands at home and abroad. Among these, 8 companies are listed at home and abroad with 11 stocks. Weichai Holding Group currently has 100,000 employees worldwide and an annual revenue of more than 300 billion yuan. It ranks 86th in China's top 500 enterprises, 31st in China's top 500 manufacturing companies, 18th in China's top 100 multinational companies, and has a multinational index of 39.06%.

As an engine manufacturer founded early in China, Weichai Power has been a major supplier of the construction machinery industry of China. It boosts the whole series of engines for construction machinery, with the displacement ranging from 2.3L to 17L and the power ranging from 36.8kW to 566kW. These engines meet China III emission standard for diesel engines for non-road mobile machinery, China V, China VI, EU Stage II/III, EU V/VI, BS (CEV) III, and MAR-I emission standards. Weichai engines for construction machinery (China III emission standard for diesel engines for non-road mobile machinery) is applied with the electronically controlled high-pressure common rail, with the power ranging from 36.8kW to 566kW, and are applicable to loaders, excavators, bulldozers, forklifts, cranes, rollers, graders, small multi-purpose machinery, aerial work platforms, sanitation equipment, wide-body dump trucks, large road building machinery, etc.

CHALLENGER CMC

MOBILE CRUSHING & SCREENING PLANTS

CHALLENGER CMC JAW CRUSHER

Trimax
Machinery
ADVANCING CRUSHING FOR THE future



**SMART DIESEL-
ELECTRIC DRIVE**

JAW CRUSHER	CMC 96	CMC 106	CMC 110	CMC 110
Crusher Feed Opening	930 mm x 580 mm	1,060 mm x 700 mm	1,060 mm x 750 mm	1,100 mm x 850 mm
Maximum Feed Size	480 mm	600 mm	600 mm	600 mm
Closed Side Setting (CSS)	60 – 175 mm	70 – 200 mm	60 – 175 mm	70 – 200 mm
Approximate Capacity	105 - 390 mtp/h	130 - 500 mtp/h	150 - 380 mtp/h	150 - 480 mtp/h
Engine / Motor Output	300 kW	300 kW	300 kW	300 kW
Approximate Weight	47,268 kg	54,126 kg	58,000 kg	70,000 kg
Transport Dimensions (mm)	14,109 x 2,960 x 3,625	14,388 x 2,960 x 3,625	14,500 x 2,950 x 3,590	14,338 x 2,960 x 3,625
Working Dimensions (mm)	16,650 x 4,530 x 4,260	16,929 x 4,530 x 4,527	16,929 x 4,530 x 4,527	17,932 x 4,494 x 4,459

CHALLENGER CMC

MOBILE CRUSHING & SCREENING PLANTS

CHALLENGER CMC JAW CRUSHER



SMART DIESEL-
ELECTRIC DRIVE



JAW CRUSHER	CMC 116	CMC 130
Crusher Feed Opening	1,150 mm x 760 mm	1,000 mm x 1,300 mm
Maximum Feed Size	640 mm	800 mm
Closed Side Setting (CSS)	70 – 200 mm	100 – 250 mm
Approximate Capacity	165 - 520 mtph	369 - 831 mtph
Engine / Motor Output	350 kW	500 kW
Approximate Weight	66,126 kg	98,000 kg
Transport Dimensions (mm)	14,888 x 3,080 x 3,730	17,085 x 5,521 x 6,256
Working Dimensions (mm)	17,129 x 4,650 x 4,637	17,100 x 3,600 x 5,400



JC Series Jaw Crusher
High Output | Small Nip Angle| Large Aggressive Stroke

CHALLENGER CMC

MOBILE CRUSHING & SCREENING PLANTS

CHALLENGER CMC JAW CRUSHER



FEED HOPPER

Feeder Size

1,100 mm x 4,000 mm

Volume

4.8 / 12.0 m³

Maximum Feed Height

3,974 / 6,219 mm

MAIN CONVEYOR

Discharge Height

4,000 / 5,416 mm

Belt Width

1,000 mm

SIDE CONVEYOR

Discharge Height

2,255 / 2,879 mm

Belt Width

650 mm

CONTINUOUS CRUSH SYSTEM

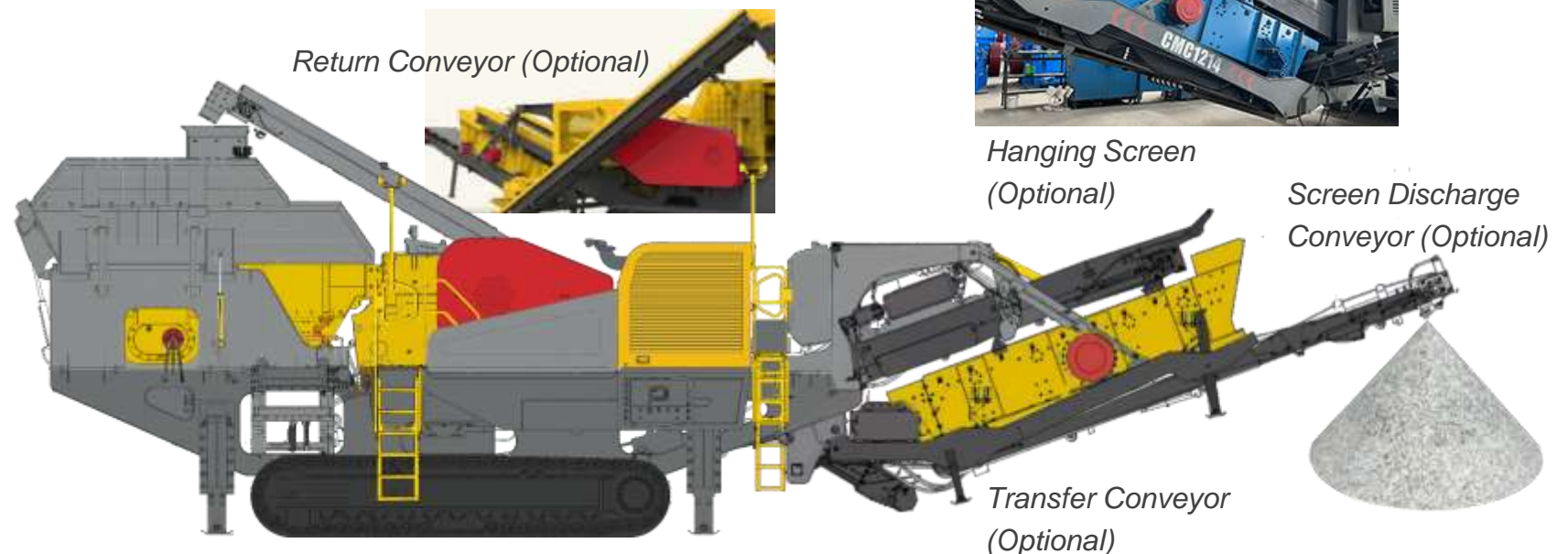
The Continuous Crush System is an unblocking system designed to handle bridging, reversing the crusher to clear the obstruction, minimizing stoppages.

TOUGH BY DESIGN

Fundamentally built tough and have an uncompromising design more than adequate to handle any type of crushing condition it might encounter.

ACTIVE CSS ADJUSTMENT

The Active CSS Adjustment hydraulically moves a pair of wedges to either increase or decrease the closed side setting.



CHALLENGER CMC

MOBILE CRUSHING & SCREENING PLANTS

CHALLENGER CMC CONE CRUSHER

Trimax
Machinery
ADVANCING CRUSHING FOR THE *future*



**SMART DIESEL-
ELECTRIC DRIVE**

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

CHALLENGER CMC

MOBILE CRUSHING & SCREENING PLANTS

CHALLENGER CMC CONE CRUSHER

Trimax
Machinery
ADVANCING CRUSHING FOR THE *future*



SMART DIESEL-
ELECTRIC DRIVE



CONE CRUSHER	300HF	400H	600HF
Cone Crusher Model	HPY300	HPY400	HPY600
Maximum Feed Size	85 – 185 mm	85 – 240 mm	85 – 185 mm
Closed Side Setting (CSS)	6 – 45 mm	8 – 51 mm	8 – 45 mm
Approximate Capacity	75 - 430 mtph	237 - 500 mtph	237 - 709 mtph
Engine / Motor Output	400 kW	500 kW	650 kW
Approximate Weight	53,200 / 62,700 kg	63,5000 kg	85,000 kg
Transport Dimensions (mm)	17,150 x 3,119 x 3,800	18,371 x 5,468 x 5,621	18,576 x 5,909 x 6,162
Working Dimensions (mm)	18,940 x 3,560 x 4,706	16,956 x 3,800 x 4,200	19,176 x 3,650 x 4,900



HPY Series Cone Crusher
High Output | Large Crushing Ratio | Good Particle Shape

CHALLENGER CMC

MOBILE CRUSHING & SCREENING PLANTS

CHALLENGER CMC CONE CRUSHER



FEED HOPPER

Feeder Size

1,200 mm x 6,100 mm

Volume

6.3 m³

Maximum Feed Height

3,730mm

MAIN CONVEYOR

Belt Width

1,000 mm

OPTIONAL ADD-ON

Hanging Screen Size

1,500 mm x 3,600 mm

Discharge Belt Width

1,200 mm

OPTIONAL ADD-ON

Transfer Conveyor Width

650 mm

Return Conveyor Width

500 mm

BUILT AROUND OUR SUCCESS

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

ACTIVE CSS ADJUSTMENT

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.

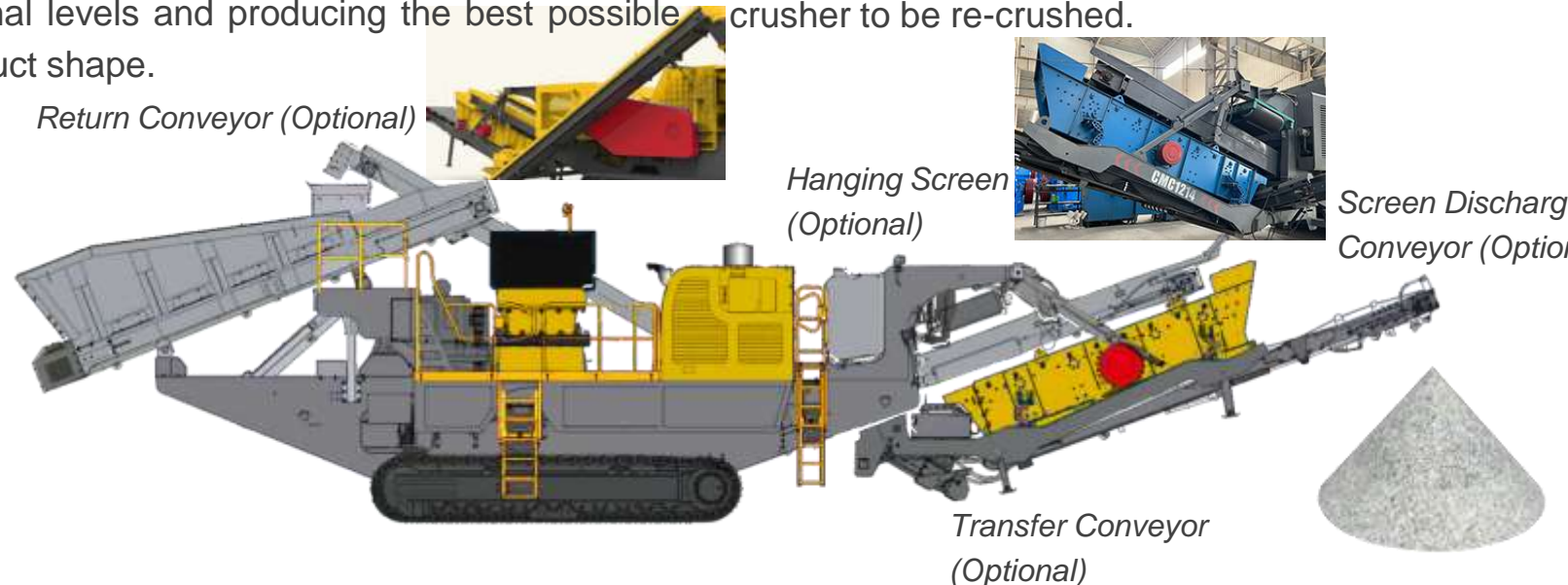
Return Conveyor (Optional)

RECIRCULATORY CRUSHING

For add 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 re-crushed.

Hanging Screen (Optional)

Screen Discharge Conveyor (Optional)



CHALLENGER CMC

MOBILE CRUSHING & SCREENING PLANTS

CHALLENGER CMC HORIZONTAL SHAFT IMPACTOR

Trimax
Machinery
ADVANCING CRUSHING FOR THE *future*



**SMART DIESEL-
ELECTRIC DRIVE**

HORIZONTAL SHAFT IMPACTOR	CMC 1310	CMC 1314
Horizontal Shaft Impactor Model	PFY1310	PFY1314
Maximum Feed Size	265 mm	600 mm
Closed Side Setting (CSS)	25 – 51 mm	10 – 38 mm
Approximate Capacity	165 - 200 mtpH	220 - 260 mtpH
Engine / Motor Output	350 kW	400 kW
Approximate Weight	45,100 / 53,700 kg	43,295 / 51,795 kg
Transport Dimensions (mm)	17,150 x 3,119 x 3,800	17,150 x 3,119 x 3,800
Working Dimensions (mm)	18,130 x 3,560 x 4,965	18,130 x 3,560 x 4,965



CHALLENGER CMC

MOBILE CRUSHING & SCREENING PLANTS

CHALLENGER CMC HORIZONTAL SHAFT IMPACTOR

Trimax
Machinery
ADVANCING CRUSHING FOR THE future

FEED HOPPER

Feeder Size

1,100 mm x 4,000 mm

Volume

4.5 m³

Maximum Feed Height

4,010mm

MAIN CONVEYOR

Belt Width

1,000 mm

SIDE CONVEYOR

Belt Width

500 mm

OPTIONAL ADD-ON

Hanging Screen Size

1,500 mm x 3,600 mm

Discharge Belt Width

1,200 mm

OPTIONAL ADD-ON

Transfer Conveyor Width

650 mm

Return Conveyor Width

500 mm

3 CRUSHING ZONES

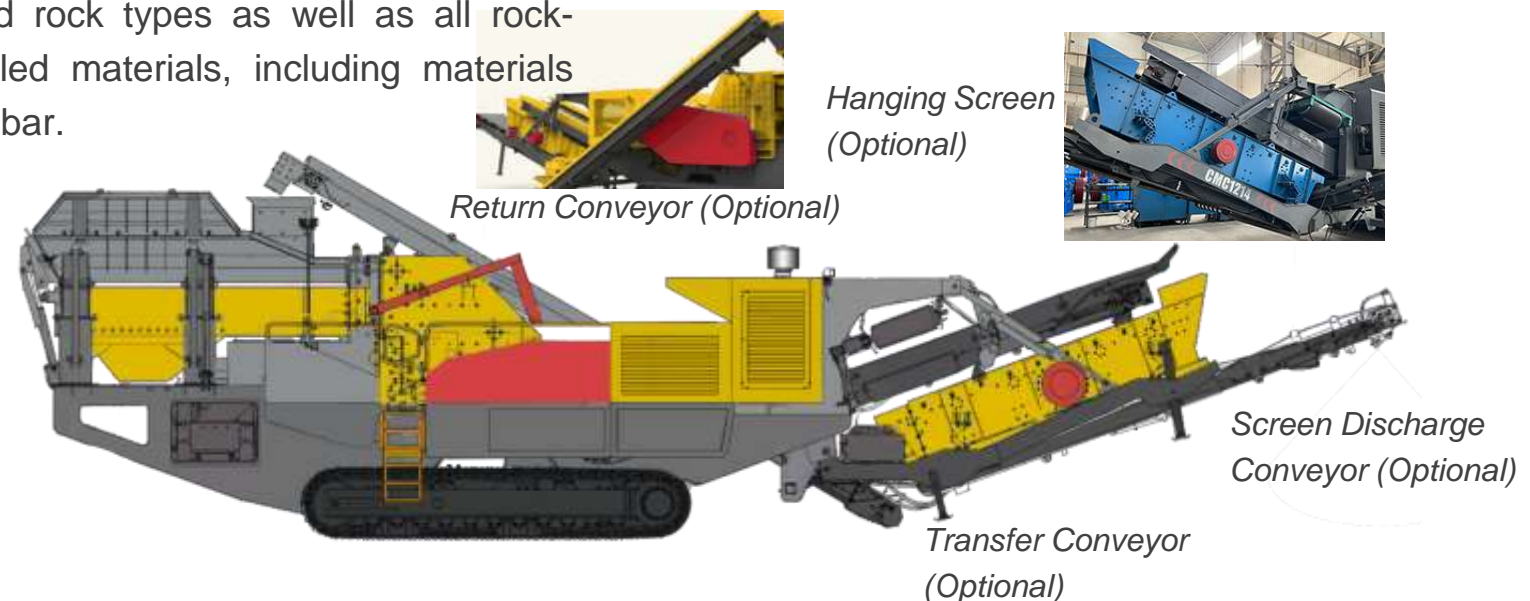
What sets the Trimax Challenger CMC Horizontal Shaft Impactor apart from the rest of the competition is its innovative three (primary, secondary, & tertiary) crushing zones within its crushing chamber design. Enabling it to achieve higher reduction ratios, high production volumes, and better shaping.

VERSATILE ALL-IN-1 MACHINE

Besides being more than capable to crusher medium hard rock types as well as all rock-based recycled materials, including materials containing rebar.

RECIRCULATORY CRUSHING

For add versatility, an optional single-deck hanging screen may be installed. A transfer conveyor and return conveyor conveys the retained crushed material back to the horizontal shaft impactor to be re-crushed.



CHALLENGER CMC

MOBILE CRUSHING & SCREENING PLANTS

CHALLENGER CMS VIBRATING SCREEN

Trimax
Machinery
ADVANCED CRUSHING FOR THE future



SMART DIESEL-
ELECTRIC DRIVE



VIBRATING SCREEN	CMS 1460	CMS 1560	CMS 1860	CMS 2060
Vibrating Screen Size	1,400 mm x 6,000 mm	1,500 mm x 6.000 mm	1,600 mm x 6,000 mm	2,000 mm x 6,000 mm
Number of Screen Decks	3	3	3	3
Approximate Capacity	260 mtp/h	300 mtp/h	375 mtp/h	450 mtp/h
Engine / Motor Output	100 kW	100 kW	100 kW	150 kW
Approximate Weight	38,000 kg	38,200 kg	38,500 kg	38,800 kg
Transport Dimensions (mm)	17,050 x 2,780 x 3,706	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 18,554 x 6,480	18,578 x 18,654 x 6,480	18,578 x 18,954 x 6,480	18,578 x 19,154 x 6,480

CHALLENGER CMC

MOBILE CRUSHING & SCREENING PLANTS

CHALLENGER CMS VIBRATING SCREEN

Trimax
Machinery
ADVANCING CRUSHING FOR THE *future*



SMART DIESEL-
ELECTRIC DRIVE

VIBRATING SCREEN	CMS 2165	CMS 2460	CMS 2465
Vibrating Screen Size	2,100 mm x 6,500 mm	1,500 mm x 6.000 mm	2,400 mm x 6,500 mm
Number of Screen Decks	3	3	3
Approximate Capacity	500 mtph	500 mtph	500 mtph
Engine / Motor Output	250 kW	165 kW	250 kW
Approximate Weight	50,000 kg	47,500 kg	51,000 kg
Transport Dimensions (mm)	14,600 x 3,900 x 4,250	14,100 x 4,100 x 4,250	14,600 x 4,100 x 4,250
Working Dimensions (mm)	19,208 x 19,255 x 6,436	14,132 x 19,555 x 6,265	19,208 x 19,555 x 6,436

CHALLENGER CMC

MOBILE CRUSHING & SCREENING PLANTS

CHALLENGER CMS VIBRATING SCREEN

FEED HOPPER

Volume

6.2 m³

FEED HOPPER CONVEYOR

Belt Width

1,000 mm

SIDE CONVEYOR 1

Belt Width

500 mm

Discharge Height

4,500 mm

SIDE CONVEYOR 2

Belt Width

650 mm

Discharge Height

4,858 mm

OPTIMISED FEEDING & SCREENING

Every care & consideration has been taken into account in the design of the Trimax CMS Vibrating Screen in order to optimize its feeding and screen capacity and efficiency, ranging from the large feed hopper of 6.2m³, 1000mm wide feed hopper conveyor for maximized feeding, large screening area, and high conveyor discharge heights.

SIDE CONVEYOR 3

Belt Width

650 mm

Discharge Height

4,858 mm

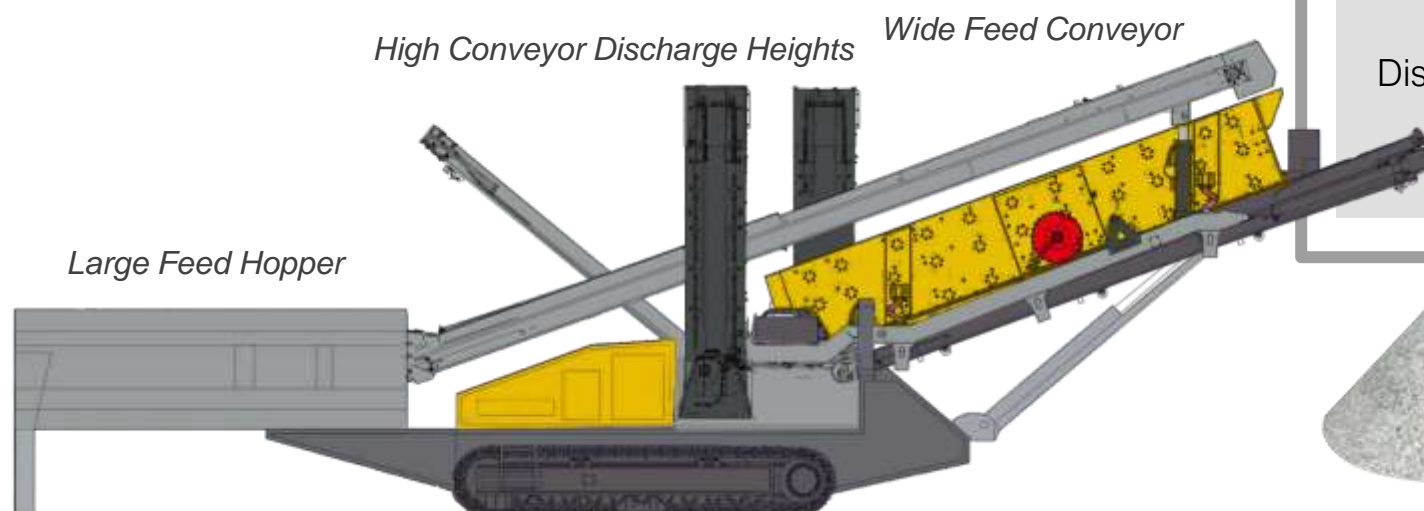
MAIN DISCHARGE CONVEYOR

Belt Width

1,200 mm

Discharge Height

4,887 mm



CHALLENGER CMC

MOBILE CRUSHING & SCREENING PLANTS

CHALLENGER CMS FINGER SCALPER

Trimax
Machinery
ADVANCING CRUSHING FOR THE future



SMART DIESEL ELECTRIC DRIVE



FINGER SCALPER

CMS 1845

Finger Screen Model	2YA1845H
Maximum Feed Size	600 mm
Finger Bar Gap	25 – 200 mm
Approximate Capacity	Up to 700 mtp/h
Number of Screen Decks	2
Approximate Weight	35,455 kg
Transport Dimensions (mm)	13,279 x 2,956 x 3,500
Working Dimensions (mm)	17,066 x 9,080 x 3,991

MAIN CONVEYOR

Belt Width

1,500 mm

FEED HOPPER

Volume

8.1 m³

SIDE CONVEYOR

Belt Width

1,000 mm

CHALLENGER CMC

MOBILE CRUSHING & SCREENING PLANTS

Trimax
Machinery
ADVANCING CRUSHING FOR THE *future*

ADVANCED | VERSATILE | RELIABLE



HIGH CAPACITY
HIGH MOBILITY
HIGH COST-EFFICIENCY

Suitable for
Complex
Terrain
Conditions

No
Concrete
Civil Work
Required

Modular
Equipment
Combinations