

POWERSCREEN® CHIEFTAIN 1700X

3 DECK INCLINE SCREEN



TECHNICAL SPECIFICATION - REV 0 01/02/2020





CHIEFTAIN 1700X 3 DECK



OVERVIEW

SPECIFICATION

		14ft Hopper (with grid)
Total weight:		30,516kg (67,276lbs)
Transport	Length	16.6m (54' 6")
	Width	3m (9' 10")
	Height	3.5m (11' 7")
Working	Length	17.2m (56' 5")
	Width	17.3m (56' 11")
	Height	5.89m (19' 4")
Screenbox:		4.8m x 1.5m (16' x 5')
Power unit:		Diesel / Hydraulic
Plant Colour:		RAL 5021, RAL 7024 & RAL 9005

(Weight & dimensions are approximate base unit values)

FEATURES & BENEFITS

- High capacity up to 500 tph / 551 US tph (depending on media sizes & material type)
- Maximum feed size 150mm (6")
- Ability to easily change between 2 and 4 bearings using patent pending drive system
- Engine protection shutdown system
- Power unit featuring a transverse engine arrangement to aid access & serviceability
- Heavy duty single shaft incline screenbox with adjustable stroke, angle & speed
- Hydraulic screen tensioning
- Screen mesh access system for quicker mesh changes
- Maximum mobility with heavy duty, low ground pressure tracks
- Removable heavy duty pendant remote control system
- Quick set up time
- High performance hydraulic system - cast iron pumps & motors complete with hydraulic cooler
- Low profile double deck vibrating grid option with radio remote control tipping grid, angle adjustable & fully riveted construction
- Hydraulically folding conveyors for transport
- Fines conveyor drop down facility to aid bottom deck mesh access
- Hydraulic raise / lower of head section for mesh access

APPLICATIONS



Aggregate

Sand & gravel
Blasted rock
River rock



Recycling

Top soil
C&D waste
Composted materials
Wood by-products
Overburden
Foundry waste



Mining

Processed ores
Processed minerals



CHIEFTAIN 1700X 3 DECK



↓ HOPPER & GRID

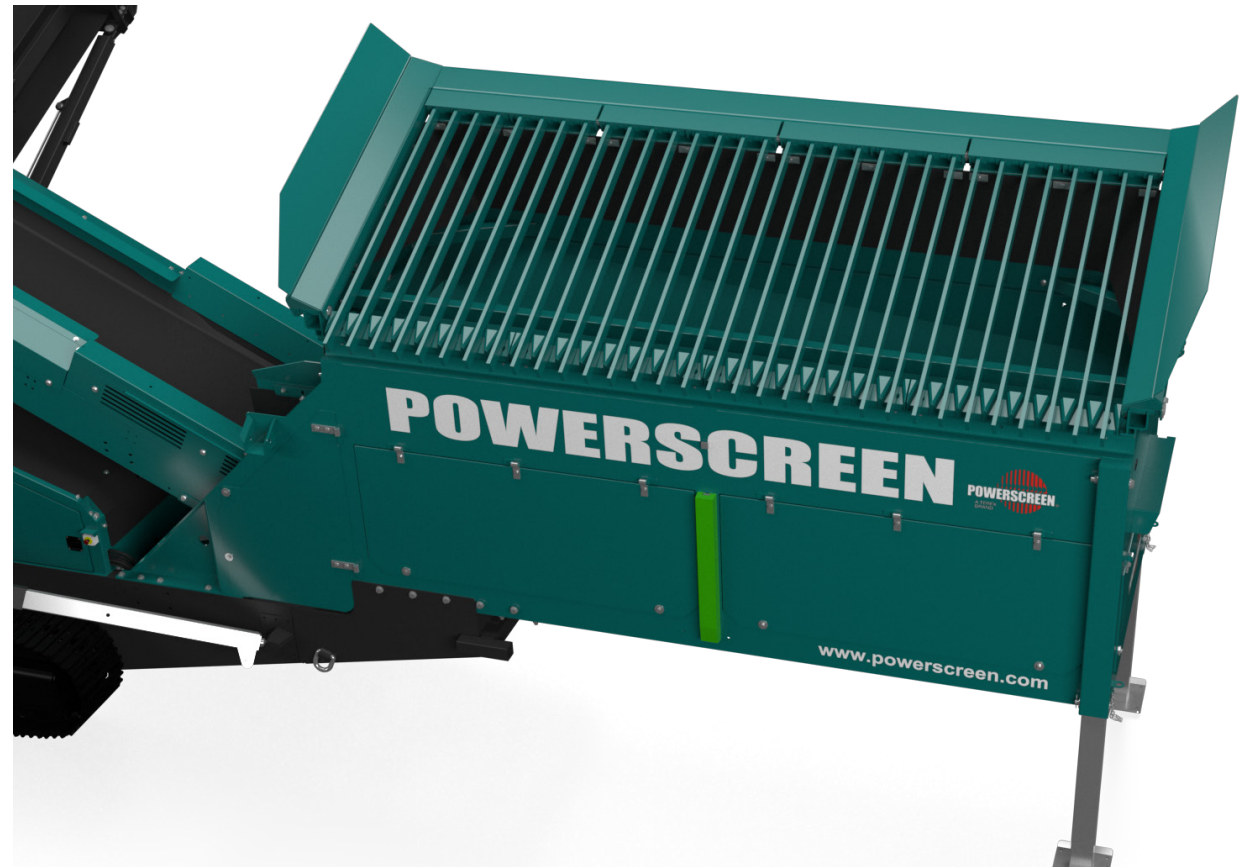
Target area: 4.75m (15' 7") long x 2m (6' 7") wide

Grid aperture: 108mm (4.3")

Hopper capacity: 5.35m³ (7 cu. yd.)

Adjustable angle tipping grid with integral loading and wing plates

Feed in height with grid: 3.59m (11' 9") (rear)





CHIEFTAIN 1700X 3 DECK



↓ SCREENBOX

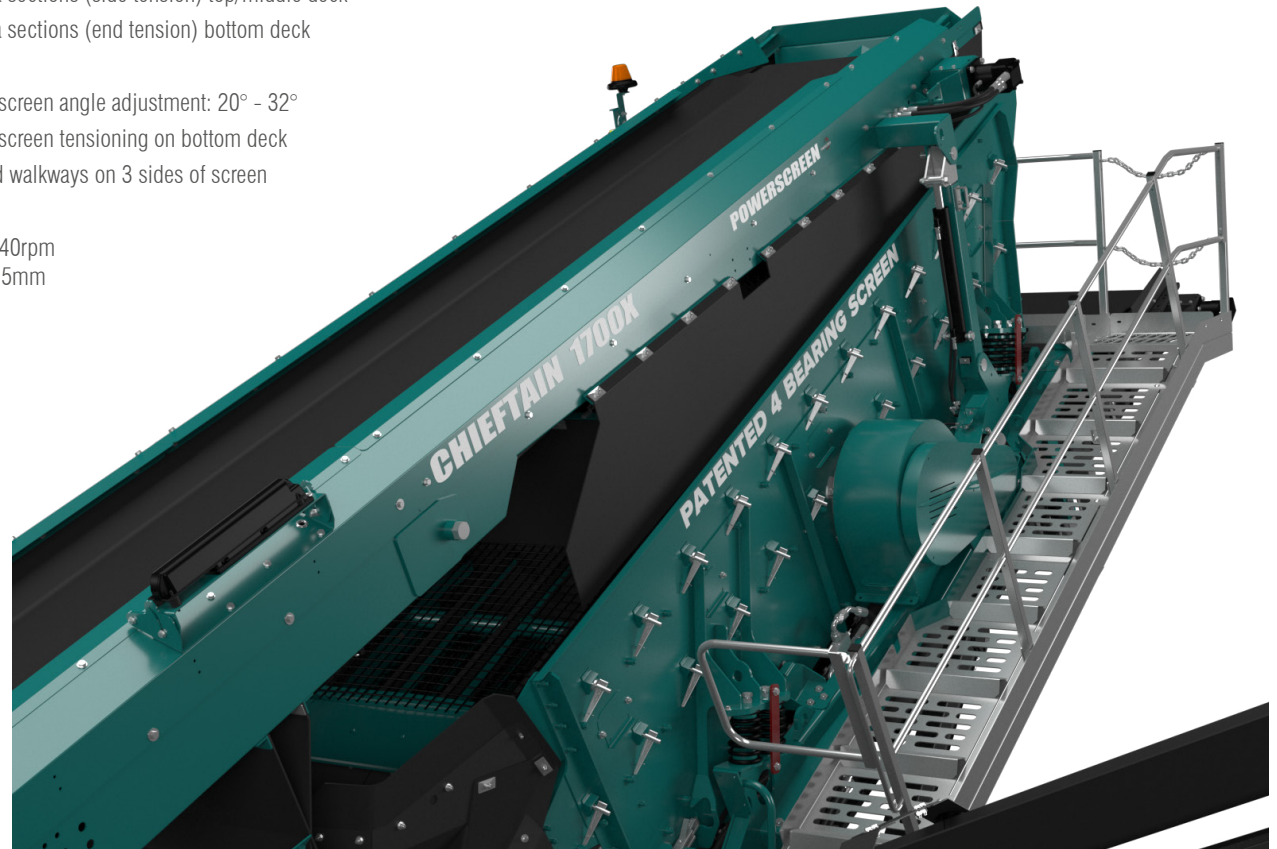
4.8m x 1.5m (16' x 5') 3 deck incline screen
Highly aggressive screen drive
Grease filled 2 or 4 bearing screenbox (leaves the factory as 4 bearing)

4.8m x 1.5m (16' x 5') top & middle deck
4.12m x 1.52m (13' 6" x 5') bottom deck

4 of media sections (side tension) top/middle deck
2 of media sections (end tension) bottom deck

Hydraulic screen angle adjustment: 20° - 32°
Hydraulic screen tensioning on bottom deck
Galvanised walkways on 3 sides of screen

Speed: 1140rpm
Throw: 6.25mm





CHIEFTAIN 1700X 3 DECK



↓ CONVEYORS

FEED CONVEYOR

1050mm (41") wide feed conveyor with direct drive system & hydraulic variable speed control

4.11m (13' 6") drum centres

350mm (13.7") drum diameter (drive)

320mm (12.6") drum diameter (tail)

Feeder stop / start comes as standard

MAIN CONVEYOR

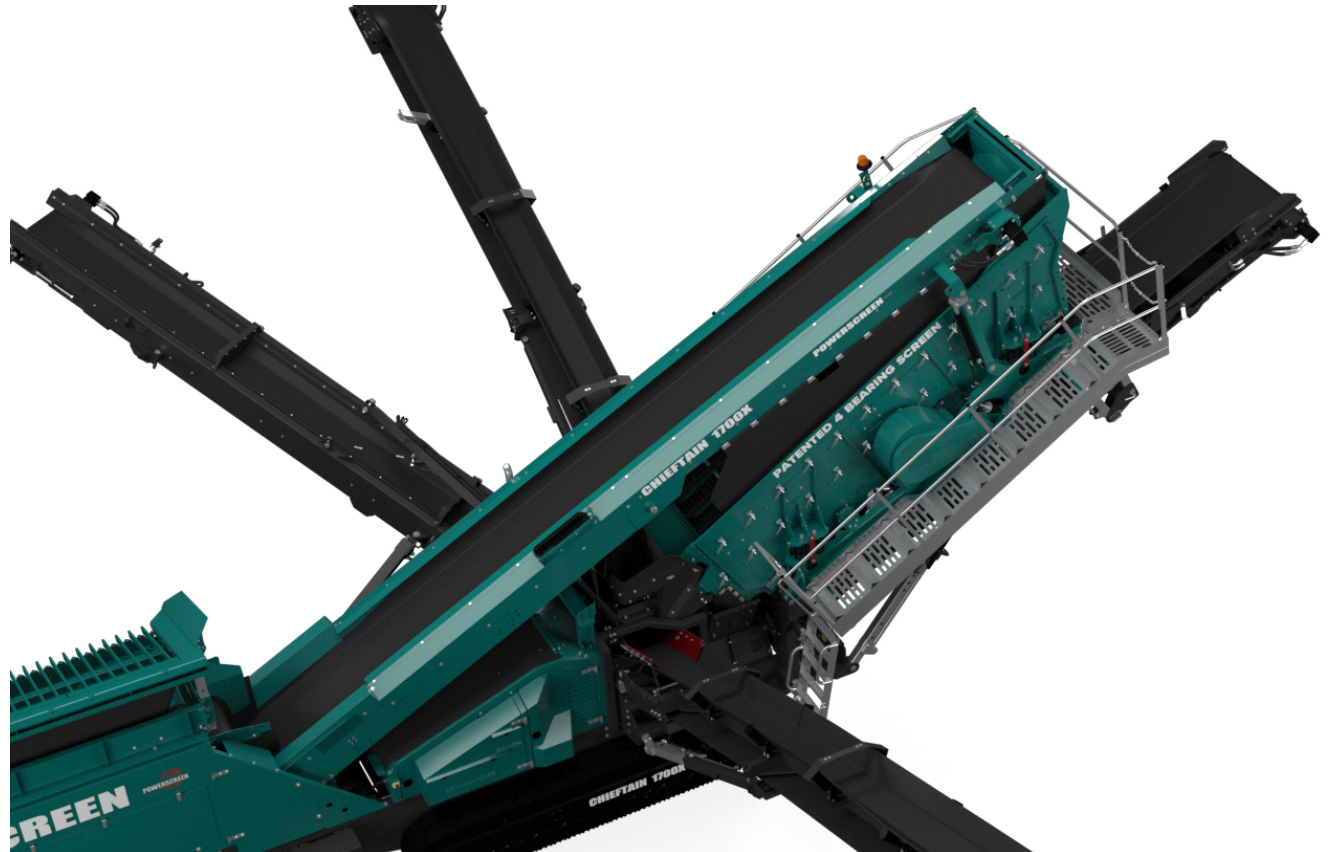
1050mm (41") 3 ply plain belt

9.89m (32' 5") drum centres

286mm (11.3") drum diameter (drive)

270mm (10.6") drum diameter (tail)

Hydraulically adjustable conveyor, fully skirted & sealed





CHIEFTAIN 1700X 3 DECK



CONVEYORS

FINESIZE - TAIL CONVEYOR

1200mm (47") wide 3 ply plain belt

6.88m (22' 7") drum centres

286mm (11.3") drum diameter (drive)

270mm (10.6") drum diameter (tail)

4.42m (14' 6") stockpile height

128m³ (168 cu. yd.) stockpile volume

Fixed speed

Hydraulically folding

Chevron belt as option

Angle adjustment: 16° - 27°





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CONVEYORS

MID-FINESIZE & MID-OVERSIZE - SIDE CONVEYORS

650mm (26") wide 3 ply chevron belt
9.67m (31' 9") drum centres
286mm (11.3") drum diameter (drive)
270mm (10.6") drum diameter (tail)

4.69m (15' 4") stockpile height
153m³ (200 cu. yd.) stockpile volume

Variable speed control on each conveyor
Hydraulically folding
Fixed angle: 24°





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↓ CONVEYORS

OVERSIZE - HYDRAULIC AUXILIARY CONVEYOR (STANDARD)

650mm (26") wide 3 ply chevron belt
7.25m (23' 9") drum centres (standard length)
286mm (11.3") drum diameter (drive)
270mm (10.6") drum diameter (tail)

3.93m (12' 11") stockpile height
90m³ (118 cu. yd.) stockpile volume

Variable speed control
Hydraulically folding
Fixed angle: 25°

OVERSIZE - HYDRAULIC AUXILIARY CONVEYOR (EXTENDED)

650mm (26") wide 3 ply chevron belt
10.26m (33' 8") drum centres (extended length)
286mm (11.3") drum diameter (drive)
270mm (10.6") drum diameter (tail)

5.21m (17' 1") stockpile height
211m³ (276 cu. yd.) stockpile volume

Variable speed control
Hydraulic folding
Working angle (slew): 0 - 70°
Working angle (rake): 8 - 24°





CHIEFTAIN 1700X 3 DECK



POWER UNIT & HYDRAULICS

Engine Tier 3:

CAT C4.4

Performance:

77 kW (104hp) @ 1800rpm

Engine Stage IIIA Constant Speed:

CAT C4.4 CS

Performance:

98 kW (131hp) @ 1800rpm

Engine Tier 4F / Stage IV:

CAT C4.4

Performance:

82 kW (110hp) @ 1800rpm

Engine Stage V:

CAT C4.4

Performance:

98 kW (131hp) @ 1800rpm

Tank Capacities:

Fuel: 336 L (88 US Gal)

Hydraulic: 450 L (118 US Gal)

Pumps:

Flywheel pump: Cast iron triple 63/41/41cc/rev

PTO pump: Cast iron triple 23/23/14cc/rev

Motors:

Belt feeder: Cast iron 160cc/rev

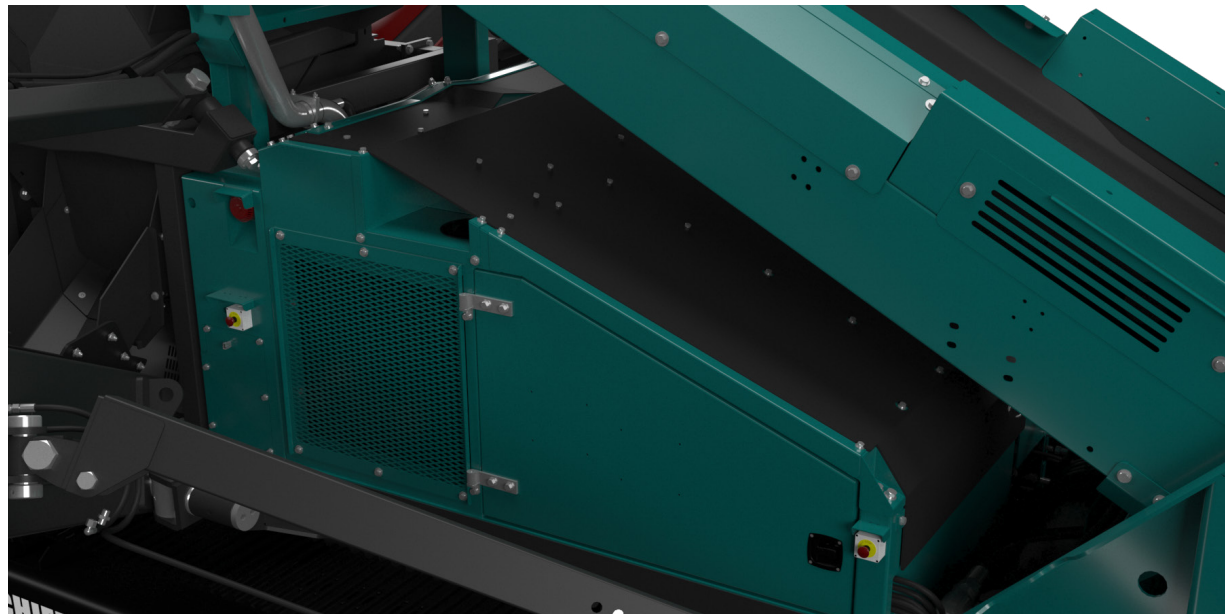
Main conveyor: Cast iron 630cc/rev

Tail conveyor: Cast iron 500cc/rev

Side conveyors: Cast iron 315cc/rev

Auxiliary conveyor: Cast iron 400cc/rev

Screen motor: Cast iron 80cc/rev





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TRACKS

Track width: 400mm (1' 4")

Sprocket centres: 3285mm (10' 9")

Gradability degrees: 23.4°

Gearbox ratio: 1:154

Hydraulic motor: 50.9cc/rev

Approximate speed: 0.9kph (0.56mph)

Total flow per track: 69 Lpm (approx.)

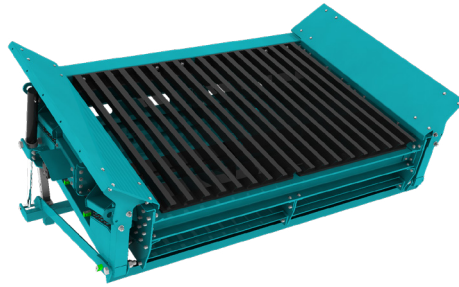




CHIEFTAIN 1700X 3 DECK



OPTIONS



DOUBLE DECK VIBRATING GRID

Target area:

3.91m (12' 10") long x 2.42m (7' 11") wide

Bottom deck screen size:

2 of 1.9m (6' 3") x 1.5m (4' 11")

Working angle: 10° - 20° (hydraulically adjustable)

Tip angle: 45° max

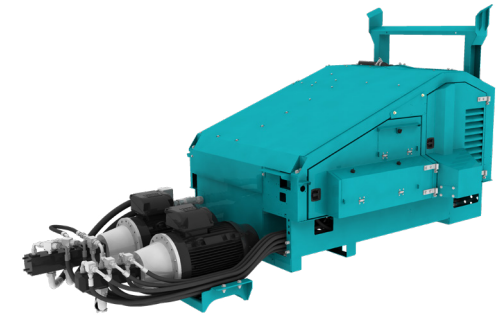
Motor: 56cc/rev

Circuit: Coupled to main conveyor circuit

Minimum feed in height with grid (rear): 3.8m (12' 6")

Increase in transport height: +75mm (3")

Increase in machine weight: +3750kg (8,267lbs)



DUAL POWER

Dual Power System:

2 of electric motors; 37 kW (50hp) & 30 kW (40hp) Diesel engine
Integrated control system

This controls either diesel-hydraulic or electric-hydraulic functions

Note: This option may alter transport dimensions and feed access.
For further details please contact engineering for detailed drawings
and dimensions.



CHIEFTAIN 1700X 3 DECK



↓ OPTIONS

OTHER OPTIONS

- Custom colour machine
- Auto lubrication system
- Quick release wedge tensioning for top & middle deck
- Anti rollback
- Radio controlled tracking
- Hydraulic jacking legs
- Grid aperture: 152mm (6")
- Hydraulic extended auxiliary conveyer
- Vibrating grid discharge chute
- Crusher feed chute (when double deck vibrating grid is selected)
- Adjustable hopper door
- Extra coupling facility
- Screenbox reverse
- Fuel save option
- Bottom deck self cleaning flexi mesh
- Powerscreen Pulse





CHIEFTAIN 1700X 3 DECK



↓ 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



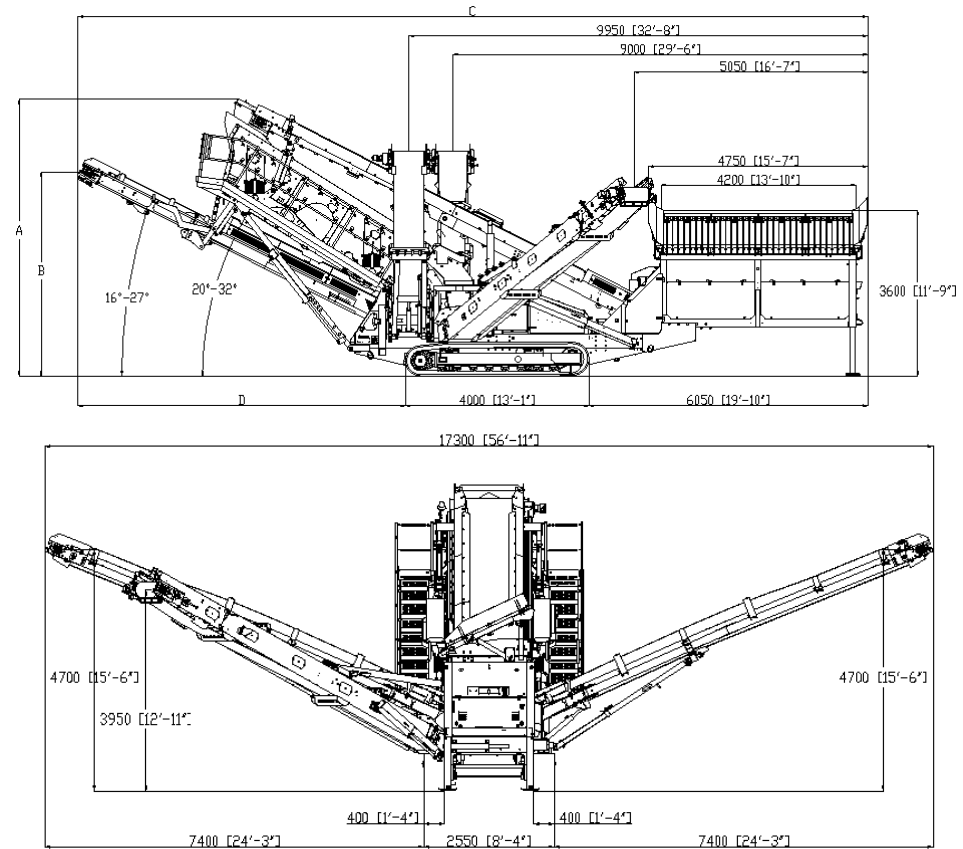
CHIEFTAIN 1700X 3 DECK



↓ DIMENSIONS

DIMENSION (MM)	SCREENBOX WORKING ANGLES (DEGREES)				
	20 DEG	24 DEG	28 DEG	30 DEG	32 DEG
A	5403	5611	5809	5886	5993
B	3157	3587	4009	4216	4417
C	17592	17461	17302	17212	17114
D	7358	7215	7045	6950	6850

Figure 1: Chieftain 1700X 3 Deck
Standard Auxiliary Conveyor
Working Position



[MORE DIMENSIONS OVERLEAF](#)

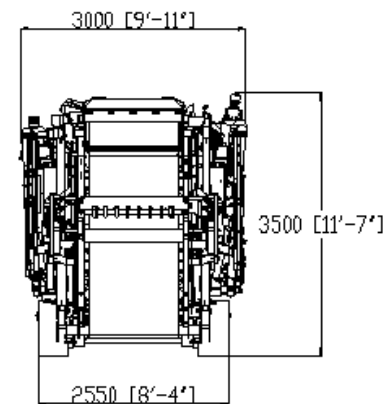
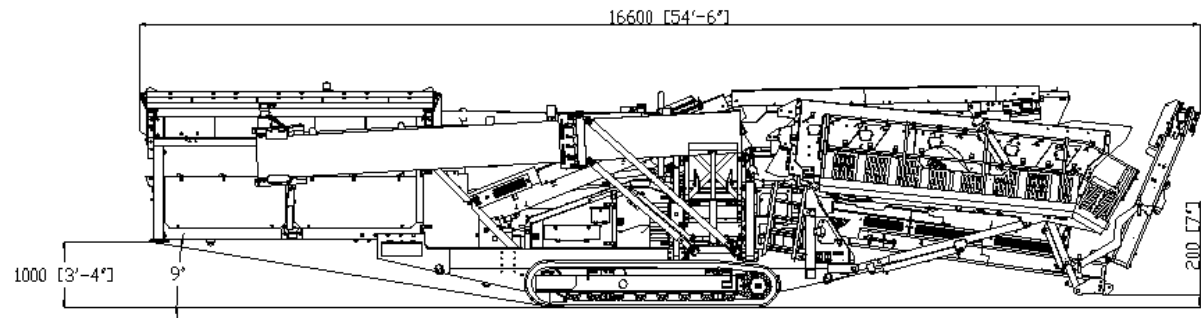


CHIEFTAIN 1700X 3 DECK



DIMENSIONS

Figure 2: Chieftain 1700X 3 Deck
Standard Auxiliary Conveyor
Transport Position



MORE DIMENSIONS OVERLEAF



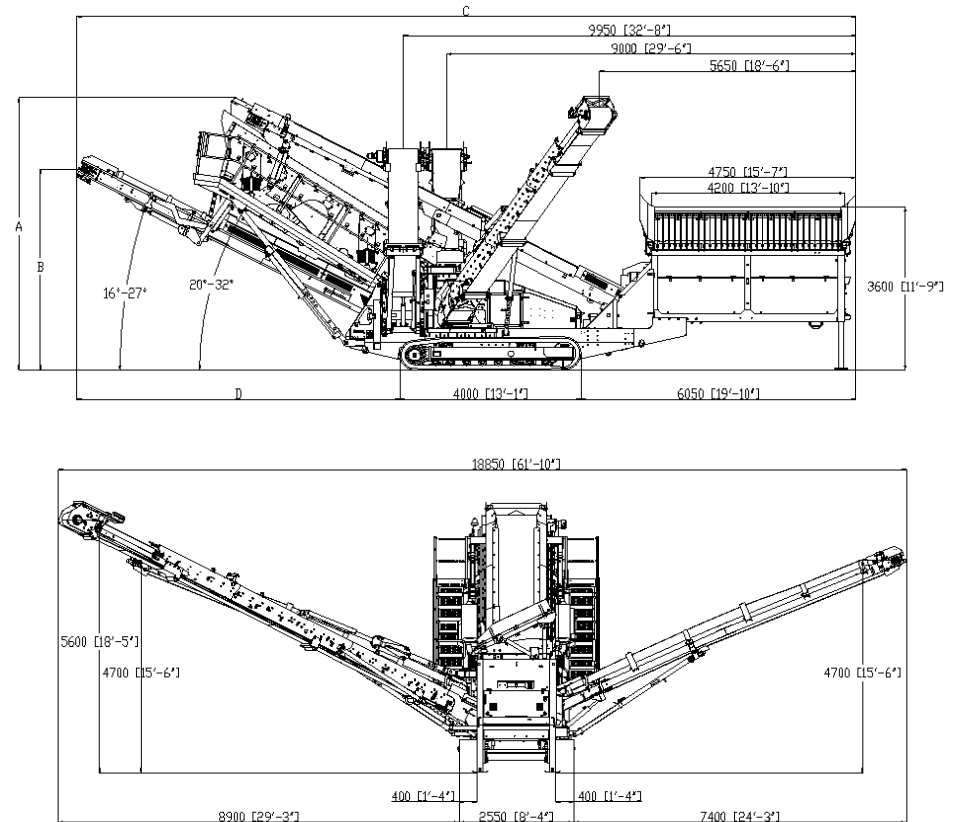
CHIEFTAIN 1700X 3 DECK



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C	17592	17461	17302	17212	17114
D	7358	7215	7045	6950	6850

Figure 3: Chieftain 1700X 3 Deck
Hydraulic Extended Auxiliary Conveyor
Working Position



MORE DIMENSIONS OVERLEAF

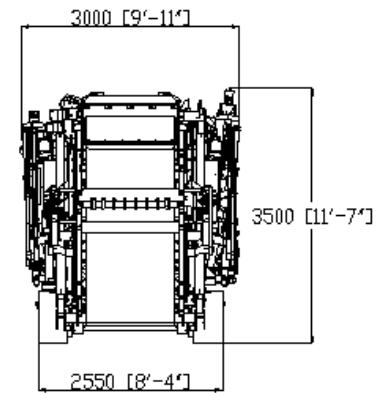
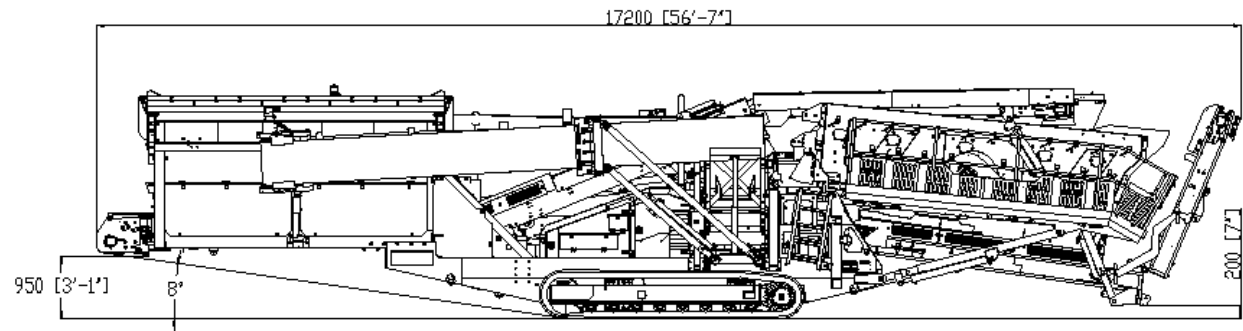


CHIEFTAIN 1700X 3 DECK



DIMENSIONS

Figure 4: Chieftain 1700X 3 Deck
Hydraulic Extended Auxiliary Conveyor
Transport Position



MORE DIMENSIONS OVERLEAF



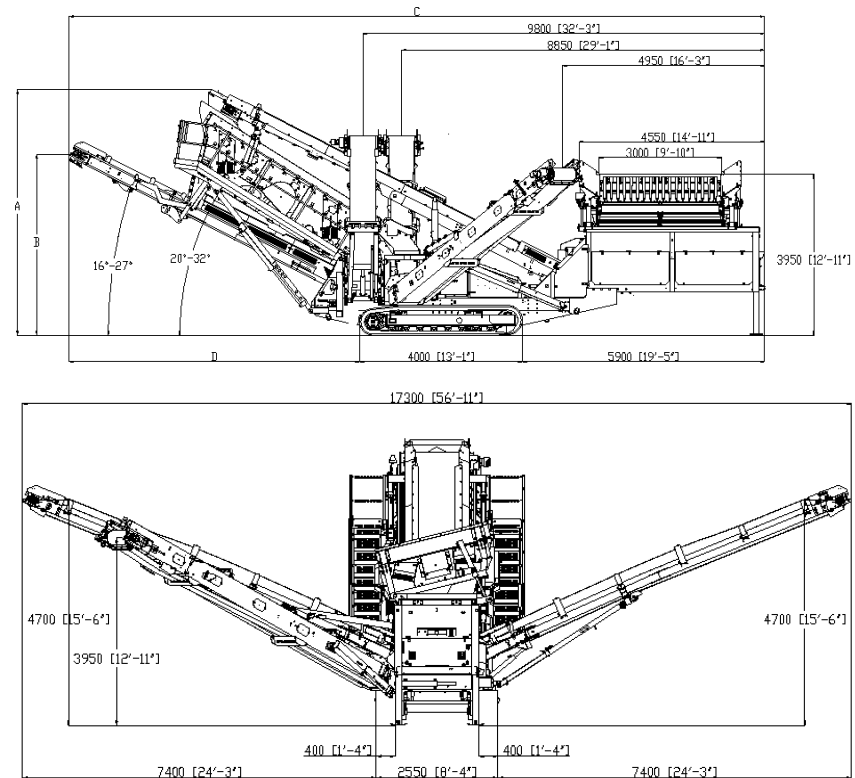
CHIEFTAIN 1700X 3 DECK



↓ DIMENSIONS

DIMENSION (MM)	SCREENBOX WORKING ANGLES (DEGREES)				
	20 DEG	24 DEG	28 DEG	30 DEG	32 DEG
A	5403	5611	5809	5886	5993
B	3157	3587	4009	4216	4417
C	17471	17340	17181	17091	16996
D	7358	7215	7045	6950	6850

Figure 5: Chieftain 1700X 3 Deck
Double Deck Vibrating Grid
Standard Auxiliary Conveyor
Working Position



MORE DIMENSIONS OVERLEAF

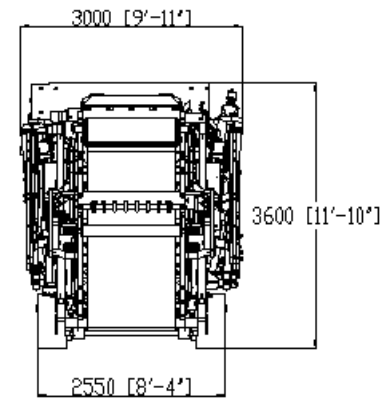
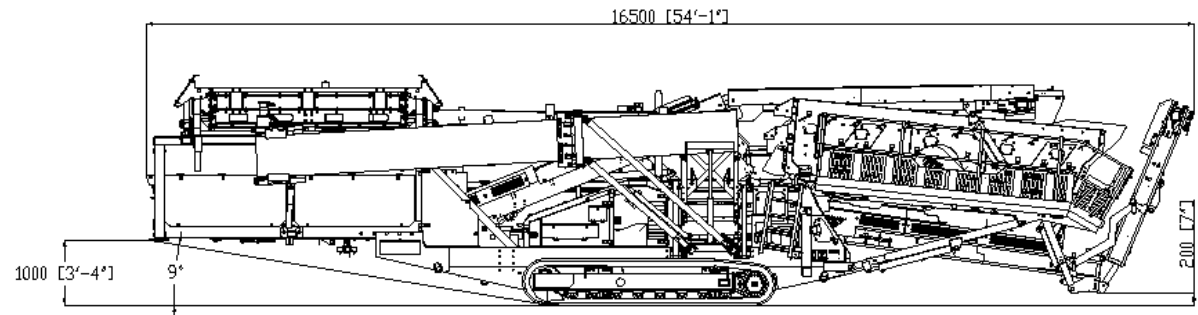


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DIMENSIONS

Figure 6: Chieftain 1700X 3 Deck
Double Deck Vibrating Grid
Standard Auxiliary Conveyor
Transport Position



MORE DIMENSIONS OVERLEAF



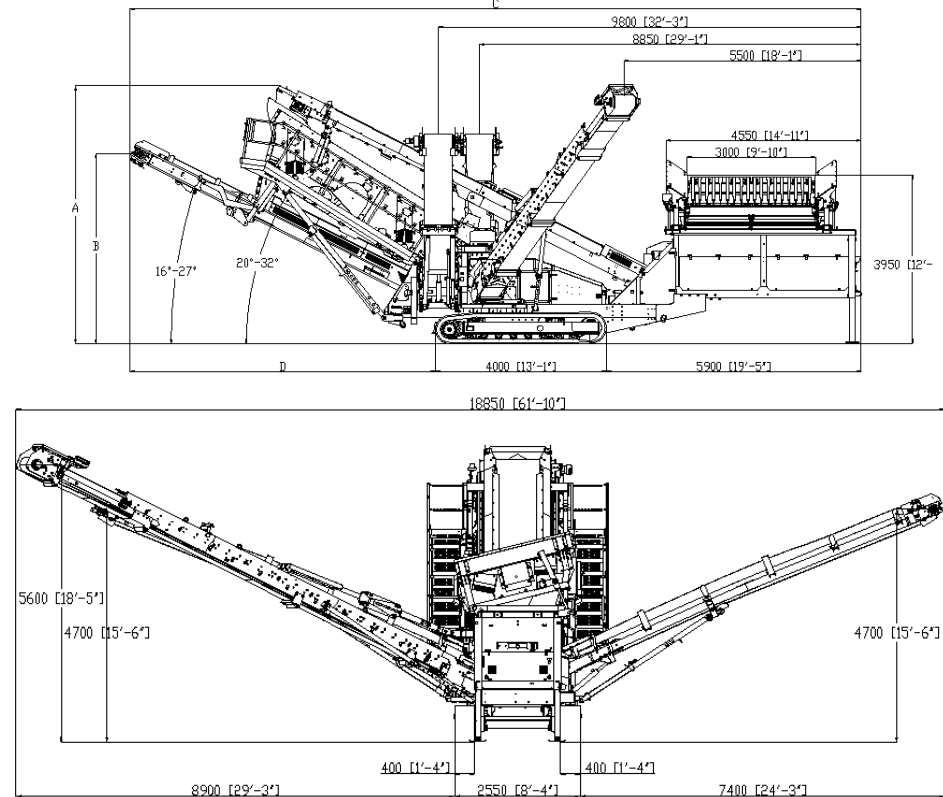
CHIEFTAIN 1700X 3 DECK



DIMENSIONS

DIMENSION (MM)	SCREENBOX WORKING ANGLES (DEGREES)				
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A	5403	5611	5809	5886	5993
B	3157	3587	4009	4216	4417
C	17471	17340	17181	17091	16996
D	7358	7215	7045	6950	6850

Figure 7: Chieftain 1700X 3 Deck
Double Deck Vibrating Grid
Hydraulic Extended Auxiliary Conveyor
Working Position



[MORE DIMENSIONS OVERLEAF](#)

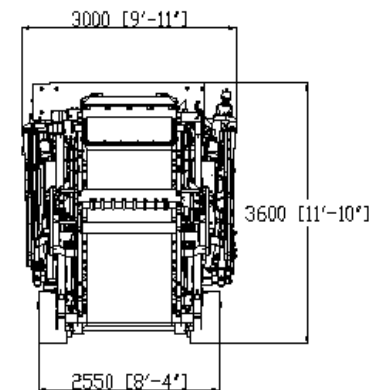
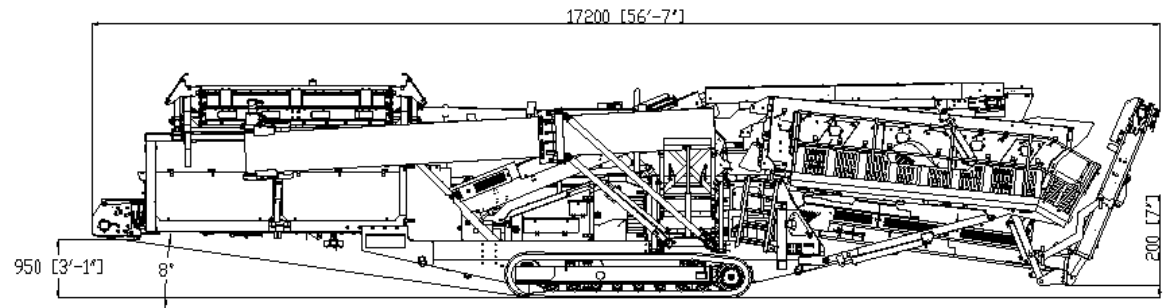


CHIEFTAIN 1700X 3 DECK



DIMENSIONS

Figure 8: Chieftain 1700X 3 Deck
Double Deck Vibrating Grid
Hydraulic Extended Auxiliary Conveyor
Transport 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.

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