

Metso

Lokotrack® ST3.8/ST4.8™ mobile screen

Product Presentation



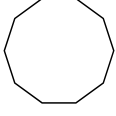
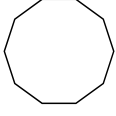
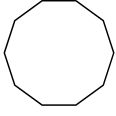
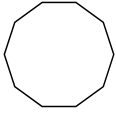
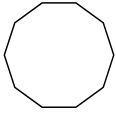
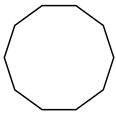
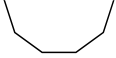
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November 12, 2024

Valid from release:

ST3.8 – R014

ST4.8 – R014



NOTE

This document contains information that may not be accurate, specific measurements and details are to the best of the authors knowledge and true at the time of print.

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Lokotrack® ST3.8 & ST4.8 fine screens

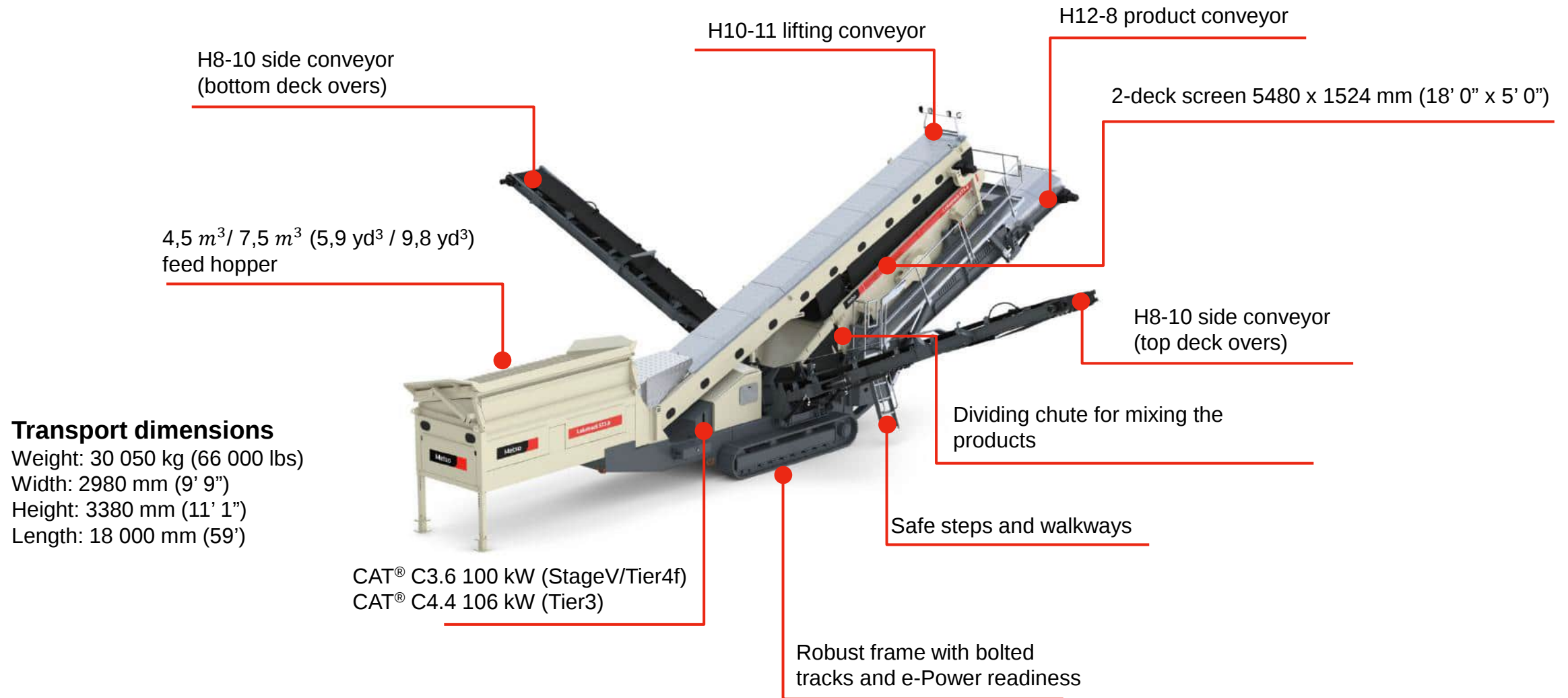


Suitable Applications

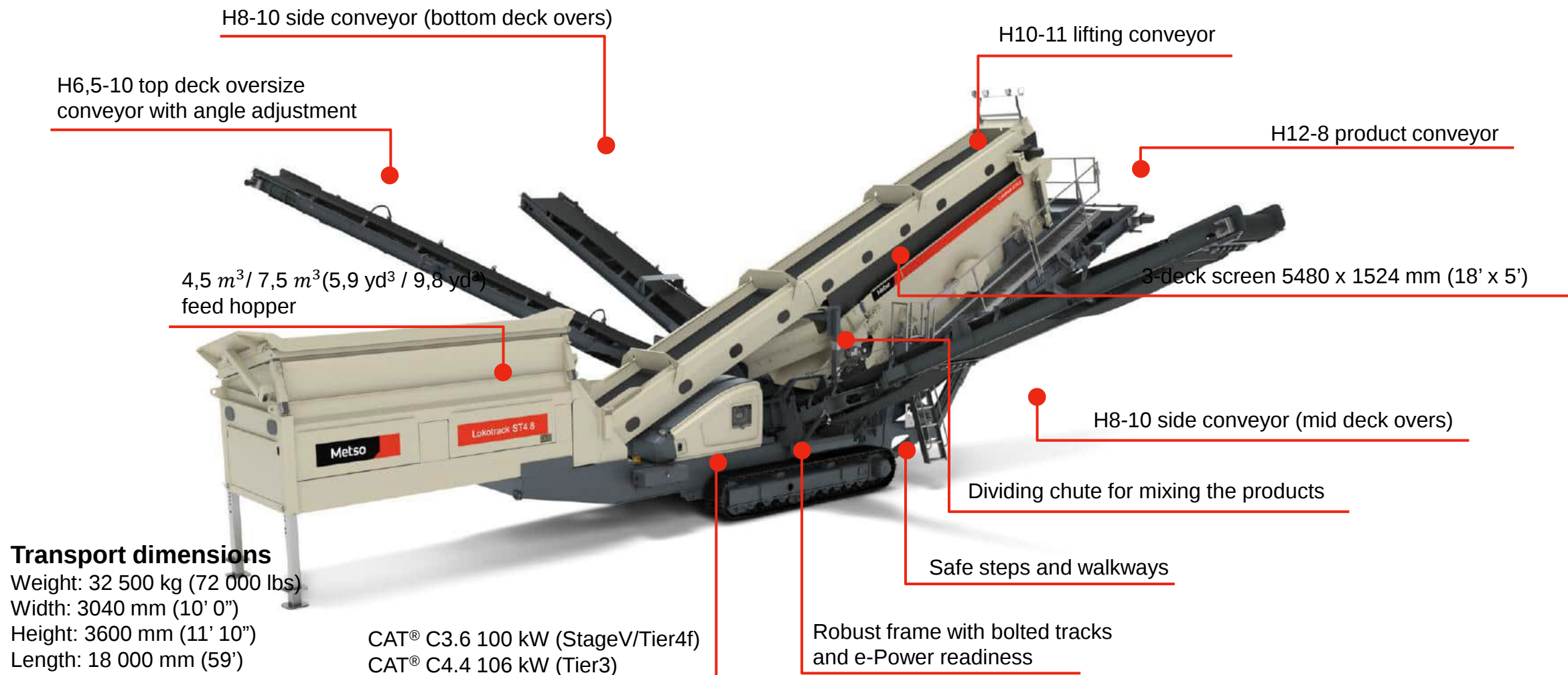
- ST3.8 and ST4.8 are efficient units to work with in various stand-alone and multistage applications.
- ST3.8 and ST4.8 are commonly utilized as fine screens for producing high quality aggregates



Lokotrack ST3.8 specification



Lokotrack ST4.8 specification



Lokotrack ST3.8 Highlights

IC process control for connectivity
Easy-to-use **IC process control**
Radio remote for feeder control and tracking
ICr Connection between multiple units
Metso Metrics for remote process monitoring

H8-10 side conveyors with adjustable angle
4,4 m (14'5") discharge height enables high stockpile capacity
Robust structure with suspended rollers
Horizontal load zone minimises spillage

Large 7,5 m³ (9,8 yd³) feed hopper for various needs
4,6 m (15'1") wide feed box allows **wheel loader feeding**
Bolted wear plates as option
Available with **rock box**, **tipping grid** or **vibrating grid**

Wide range of options
Hydraulic PTO for auxiliary equipment (e.g. stackers)
High pressure **water spraying** system
Additional work lights for safety
Carving scrapers for sticky material
Feed level gate to adjust the thickness of material that comes out from the feeder

Powerful CAT C3.6 100 kW (134 hp) engine + e-Power
High power reserve for main functions with dedicated pumps
Optimized hydraulic circuit (105 l / 28 gal) for efficient power transmission
Heavy duty air filtering as standard for demanding applications
e-Power for running the process with external electricity

H10-11 lifting conveyor delivers the rock
Hydraulic raise for easy screen media change (option)
Roll-back rubbers for round gravel (option)

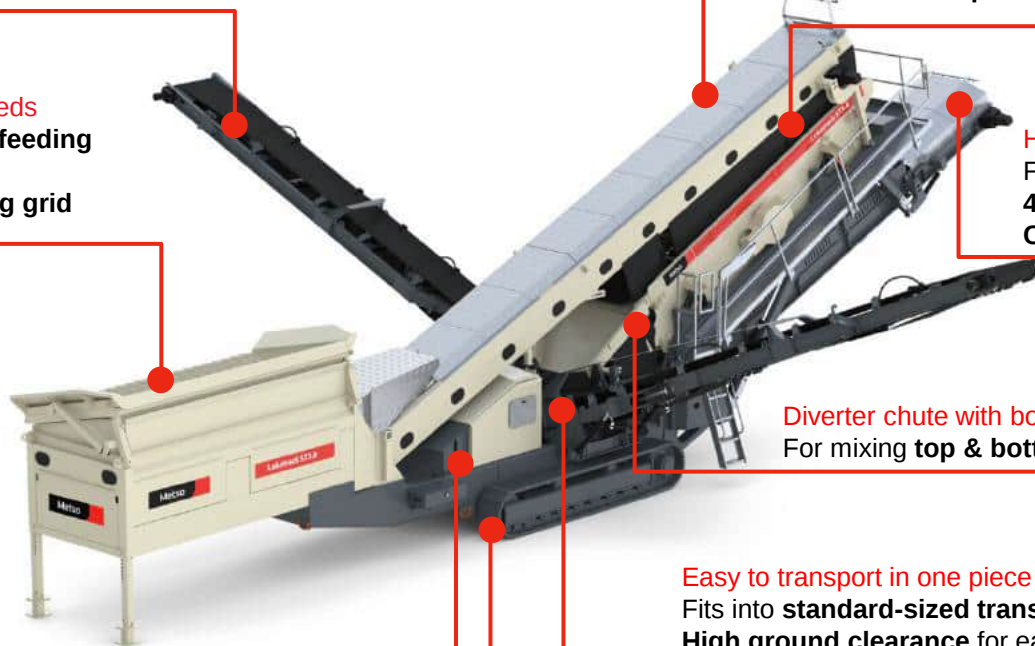
2-deck screen (5,5 x 1,5 m / 18' x 5') for accurate separation
8 mm stroke keeps the screening even under high load
Strong, stress-analyzed **screenbox** and **premium parts**
Feed box with **protective rubber lining**

H12-8 product conveyor
Folds down for easier **screen mesh change**
4,3 m / 14'1" discharge height
Carving scraper for better fines control

Diverter chute with bolted wear plates
For mixing **top & bottom deck** products

Easy to transport in one piece
Fits into **standard-sized transportation equipment**
High ground clearance for easy trailer transport
Side and product conveyors are **foldable for transport**

Robust chassis and tracks
FEM designed for **optimized weight and lifetime**
Agile tracks for good **turnability**
Easy to combine with other Lokotracks



Lokotrack ST4.8 highlights

H6,5-10 top deck oversized conveyor

4,9/5,5 m (16'1"/18'1") discharge height

Robust structure with suspended rollers

Horizontal load zone minimises spillage

Adjustable angle for easy closed circuit with LT's

H10-11 lifting conveyor delivers the rock

Adjustable feed level gate to regulate material flow

Hydraulic raise for easy screen media change (option)

Roll-back rubbers for round gravel (option)

3-deck screen (5,5 x 1,5 m / 18' x 5') for accurate separation

7 mm (0,3") stroke keeps the screening even under high load

Strong, stress-analyzed **screenbox** and **premium parts**

Feed box with **protective rubber lining**

Large 7,5 m³ (9,8 yd³) feed hopper for various needs

4,6 m (15'1") wide feed box allows **wheel loader feeding**

Bolted wear plates as standard

Available with **rock box**, **tipping grid** or **vibrating grid**

H12-8 product conveyor

Folds down for easier **screen mesh change**

4,3 m / 14'1" discharge height

Carving scraper for better fines control

Wide range of options

Hydraulic PTO for auxiliary equipment (e.g. stackers)

High pressure **water spraying** system

Dust encapsulation for the conveyors

Additional work lights for safety

Feed level gate to adjust the thickness of material that comes out from the feeder

H8-10 side conveyors with adjustable angle

4,4 m (14'5") discharge height for high stockpiles

Robust structure with suspended rollers

Horizontal load zone minimises spillage

Diverter chute with bolted wear plates

For mixing **top & middle** or **middle & bottom deck** products

Powerful CAT C4.4 106 kW (142 hp) engine

High power reserve for main functions with dedicated pumps

Optimized hydraulic circuit for efficient power transmission

Heavy duty air filtering for demanding applications (option)

Easy to transport in one piece

Fits into **standard-sized transportation equipment**

High ground clearance for easy trailer transport

Side, product, and oversized conveyors are **foldable** for transport

IC process control for connectivity

Easy-to-use **IC process control**

Radio remote for feeder control and tracking

ICr Connection between multiple units

Metso Metrics for remote process monitoring

Robust chassis and tracks

FEM designed for **optimized weight and lifetime**

Agile tracks for good **turnability**

Easy to transport in one piece



Due to the advanced design, both screens are ready to use within a few minutes **enabling quick and easy set-up**. Side, product and oversize conveyors are **foldable for transport**.



290 mm ground clearance between the ground and frame makes **the transportation and loading** of the ST easier.



Both screens meet **transportation regulations globally**. Transportation between sites is cost-efficient and simple because Lokotrack ST screens fit on **standard-sized transportation equipment**.

Transport*	ST3.8 (Metric)	ST3.8 (Imperial)	ST4.8 (Metric)	ST4.8 (Imperial)
Length	18 000 mm	59'	18 000 mm	59'
Width	2980 mm	9' 9"	3040 mm	10' 0"
Height	3380 mm	11' 1"	3600 mm	11' 10"
Weight	30 050 kg	66 300 lbs	32 500 kg	71 700 lbs
Ground Clearance	290 mm	0' 11"	290 mm	0' 11"

**Transport drawings should be used for transport permits.*

***Rinser version has different transportation dimensions and different transport drawing*

Robust chassis and heavy-duty crawler tracks



Strong and rugged **structure** ensures **reliable screening**. Robust and thoroughly **FEM analyzed chassis** designed specifically for ST3.8 and ST4.8.



Agile crawler tracks makes unit easily moveable on site. Tracks can be operated with cable or **wireless remote control**.



Low ground pressure allows the mobile screen to be moved inside the **quarry for flexible operations**.

Tracks	Metric	Imperial
Width	400 mm	16"
Length (center to center)	3310 mm	10' 10"
Speed	0,35 / 0,7 km/h	0,22 / 0.43 mph
Ground pressure	116 kPa	116 kPa

Robust feed hopper and versatile options



Robust 6 mm 400HB wear resistant **steel plates** as a **standard**. 4,6 m wide feed box allows **wheel loader feed**.



Feeder module can be equipped with **tipping grid**, **two deck vibrating grid** or **rock box** depending feed material and the feeding arrangement in the application.

Feeding	Metric	Imperial
Feed hopper volume (std. / including grid)	4,5 m ³ / 7,5 m ³	5,9 yd ³ / 9,8 yd ³
Loading height (without grid / with grid / with vibrating grid)	2500 mm / 3300 mm / 3430 mm	8' 2" / 10' 10" / 11' 3"
Loading width	4650 mm	15' 3"
Wear plates	6 mm 400 HB wear steel	0,2"
Feed conveyor width	1050 mm	42"
Feed conveyor length	4000 mm	13' 1"
Feed conveyor belt speed	Adjustable max. 0,37 m/s	Adjustable max. 1,2 ft/s
Vibrating grid size	3000 mm x 1800 mm	10' x 6'
Top deck plate Grizzly	107, 130, 155 mm	4, 5, 6 "
Bottom deck mesh 2 pcs.	1685 x 1493 mm (l x w)	66" x 59" (l x w)

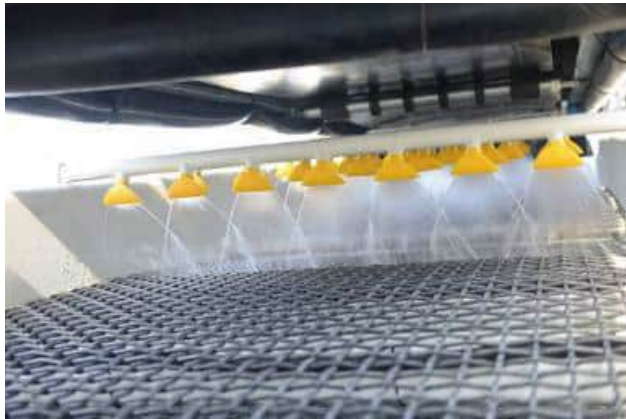


Powerful belt feeder with **well designed feed box** and **adjustable belt speed** ensures **seamless flow**.

1050 mm wide lifting conveyor delivers the rock



Belt conveyor for lifting the material from **feeder to the screen**. Conveyor is equipped with **spreader plate** distributing even material flow on the screen.



Well suitable for different environments due to versatile options including **main conveyor lifting, dust suppression, and roll back ports**.



Lifting conveyor with **1050 mm width** and **adjustable** maximum speed of **1,8 m/s** enables **high capacity**.

Lifting conveyor	Metric	Imperial
Type	H10-11	H10-11
Length	11 mm	36' 1"
Belt width	1050 mm	3' 5"
Belt speed	Adjustable max. 1,8 m/s	Adjustable max. 5,9 ft/s
Drive	Hydraulic	Hydraulic
Main conveyor lifting	Optional	Optional
Dust suppression	Optional	Optional
Roll back ports	Optional	Optional

ST3.8: 5' x 18' 2-deck screen for accurate separation



Renewed models with **high 500 t/h capacity**. 7/8 mm stroke **keeps the screening even under the high load**.



Strong, stress-analyzed **screenbox** and **premium parts** (eg. bearings) offers durability and extended lifetime in heavy-duty applications. Feed box with **protective rubber lining**.

Screen	ST3.8 (Metric)	ST3.8 (Imperial)
Number of decks	2	2
Screen area per deck	7,9 m ²	9,4 yd ²
Screen size (top deck)	5480 x 1524 mm	18' 0" x 5' 0"
Screen size (bottom deck)	5480 x 1524 mm	18' 0" x 5' 0"
Screen shaft speed	1050 rpm	
Screen angle	18°-30°	18°-30°
Stroke	Up to 8 mm	Up to 0,3"
Feedbox	Rubber lining	Rubber lining
Dividing chute	Bolted, removable wear plates to mix top and bottom decks	
Top deck mesh size	3-100 mm	0,1-3,9"
Bottom deck mesh size	3-75 mm	0,1-3,0"
Nominal top deck media	2700 x 1500 mm	8' 10" x 4' 11"
Nominal bottom deck media	2700 x 1500 mm	8' 10" x 4' 11"

ST4.8: 5' x 18' 3-deck screen for accurate separation



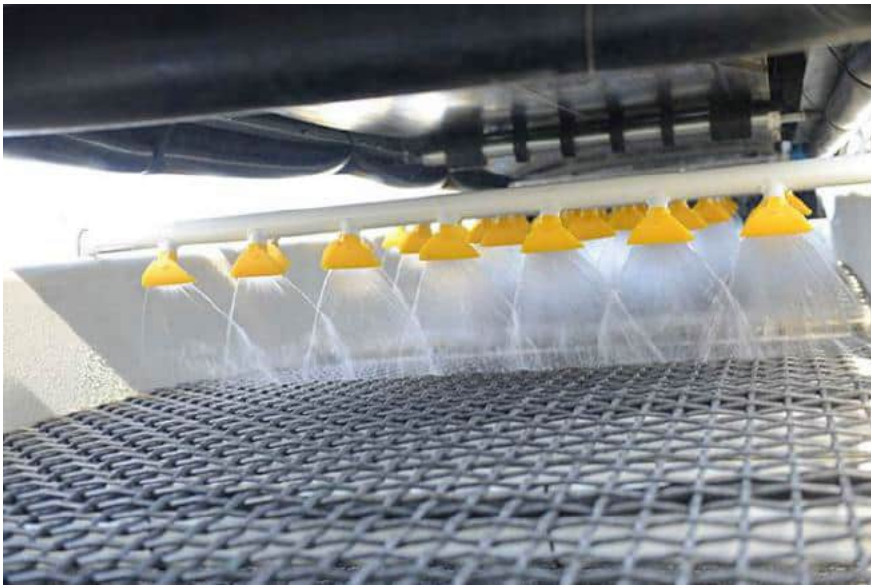
Renewed models with **high 500 t/h capacity**. 7-8 mm stroke **keeps the screening** even under **the high load**.



Strong, stress-analyzed **screenbox** and **premium parts** (eg. bearings) offers durability and extended lifetime in heavy-duty applications. Feed box with **protective rubber lining**.

Screen	ST4.8 (Metric)	ST4.8 (Imperial)
Number of decks	3	3
Screen area per deck	7,9 m²	9,4 yd²
Screen size (top/middle deck)	5480 x 1524 mm	18' 0" x 5' 0"
Screen size (bottom deck)	5480 x 1524 mm	18' 0" x 5' 0"
Screen shaft speed	1050 rpm	1050 rpm
Screen angle	18°-30°	18°-30°
Stroke	Up to 8 mm	Up to 0,3"
Feedbox	Rubber lining	Rubber lining
Dividing chute	Bolted, removable wear plates to mix top/middle decks + middle/bottom decks	
Top deck mesh size	3-100 mm	0,1-3,9"
Middle/bottom deck mesh size	3-75 mm	0,1-3,0"
Nominal top/middle deck media 2pcs	2700 x 1500 mm	8' 10" x 4' 11"
Nominal bottom deck media 2pcs	2700 x 1500 mm	8' 10" x 4' 11"

ST4.8: 5' x 18' 3-deck rinser screen



Rinser screen for **wet screening**.

Consist of spray pipes with gate valves, washer beam with manometer, water inlet flange and slurry chute with rubber lining. The water volume can be adjusted for each pipe according feed material/needed separation.



ST4.8 rinser	
Nozzles	180 nozzles
Lifting conveyor	10 nozzles / 2 washer beams
Feeding point	16 nozzles / 3 washer beams
Top deck	49 nozzles / 7 washer beams
Middle deck	53 nozzles / 7 washer beams
Bottom deck	52 nozzles / 7 washer beams
Water pressure	Max 3 bars. Manometer on the main water beam. Each washer beam can be separately opened/closed.
Water pump	19 kW / 2 Bar, 35 kW / 3 Bar recommended
Discharge chute	Slurry collection chute with rubber lining
Main conveyor lifting	Included when rinser is selected

10 m robust side conveyors with adjustable angle



Type H8-10 robust side conveyor with 4440 mm discharge height and belt speed of 2,0 m/s enables **high capacity**.
Robust structure with suspended rollers offers durability.



Diverter chute with removable wear plates to mix products.
Horizontal load zone **minimizes spillage**.



Adjustable angle for **reduced rollback** and **easier closed circuit**.

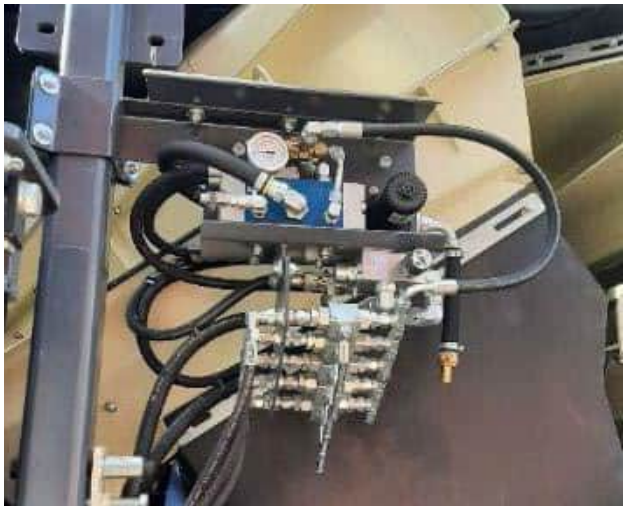
Side conveyor	Metric	Imperial
Type	H8-10	
Length	10 m	32' 10"
Belt width	800 mm	32"
Belt speed	0-2,0 m/s	0-6,6 ft/s
Discharge height (24°)	4440 mm	14' 7"
Drive	Hydraulic	Hydraulic
Standard default angle	24°	24°
Angle adjustment (optional)	16°/19°/22°/24° for bottom deck 24°/25,5°/27° for middle deck	
Foldable for transport	Standard	Standard

1200 mm wide product conveyor for high capacity



Type H12-8 robust product conveyor with 4300 mm discharge height and belt speed of 1,85 m/s enables **high stock pile capacity**.

Product conveyor	Metric	Imperial
Type	H12-8	H12-8
Length	8 m	26' 3"
Belt width	1200 mm	48"
Belt speed	1,85 m/s	6,1 ft/s
Discharge height (25°)	4300 mm	14' 1"
Drive	Hydraulic	Hydraulic
Foldable for transport	Standard	Standard
Dust suppression	Optional	Optional

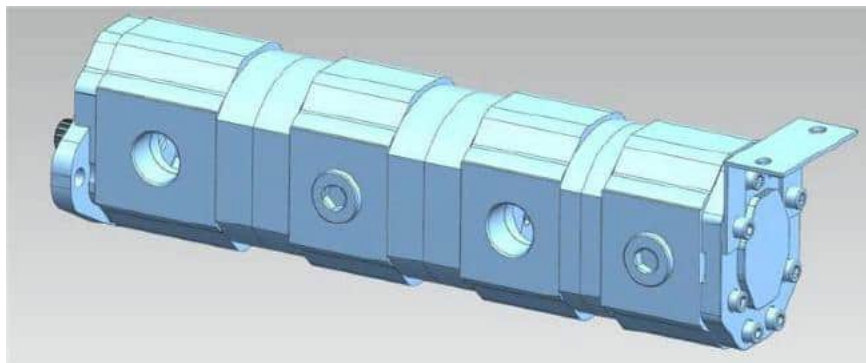


Carving scraper available as option for improved fines control especially with sticky material



High pressure water spraying system as option for advanced dust control. Includes **water spraying system** and **aluminum sheet covers** for main conveyor and product conveyor.

Efficient power transmission with low fuel consumption



Advanced hydraulics system with 5 fixed displacement pumps provides **high torque and stable power** to all process functions.

Power unit	
Engine (StageV/Tier4F)	Cat C3.6 100 kW (134 hp)
Engine (Tier3)	Cat C4.4 106 kW (142 hp)
Hydraulic tank	105 l (28 gal)
Hydraulics	Fixed displacement pumps
Screen	1x 50 cc
Feeder	1 x 38 cc
Lifting conveyor	1 x 38 cc
Product conveyors	2 x 38 cc



Reduced hydraulic oil volume (105 l) is quicker to warm up/cool down maintaining normal change interval.



Efficient engines and optimized hydraulics enable **low fuel consumption.**

Well designed power unit is durable and easy to maintain



Power unit is designed for **easy maintenance**.



Standard heavy-duty filtering has **3 times better filtering capacity** vs. regular filters.



Integrated fuel tank enables **re-fueling from both sides**



Power unit	
Diesel tank	300 l (79 gal)
Diesel exhaust fuel tank	19 l (5 gal)
Air filter	HD filter with 2 elements and cycloid pre cleaner
Voltage	24 V

e-Power option enables external electricity



The e-Power option enables **50 or 60 Hz external power supply** during process. Track driving mode is only available with the diesel motor.

All process options (eg. hydraulic PTO, water pump,...) are also available with e- Power. The process mode (diesel/electricity) can be selected from the electric center with a switch.

e-Power		
Electrification	50 Hz	60 Hz
Electric motors	2 x 45 kW	
Pumps	5 x 30,5 cc fixed displacement	
Socket for external electricity	Yes	

Easy-to-use IC control system as standard

IC control system	
Monitor	Touch display
Remote radio control	Option
Feeder control	From display / radio remote
Engine rpm	From display / radio remote
Track drive	Via Cable control / radio remote
Fuel level measurement	From display
Hydraulic oil level alarm	Yes
Remote stop	Yes
Interlocking	Yes



Visual **touch display** with alternative push buttons

Easy-to-use control unit with **one button process start and stop**. Enables interlocking to other Lokotrac

Intelligent crushing helps to maximize the potential of your equipment

Metso Metrics

Connect to digital services and **plan ahead** of the problems.

Remote IC

Better visibility and remote control improves safety and helps to **avoid process stops**.

IC xxx

Assists using the machine in the right way; and helps to **avoid costly mistakes**.

Remote IC

Process control app for Lokotrack

Operator can **view** and **control** all the machines in the train in one dashboard

Safer to operate
Less stepping out of excavator



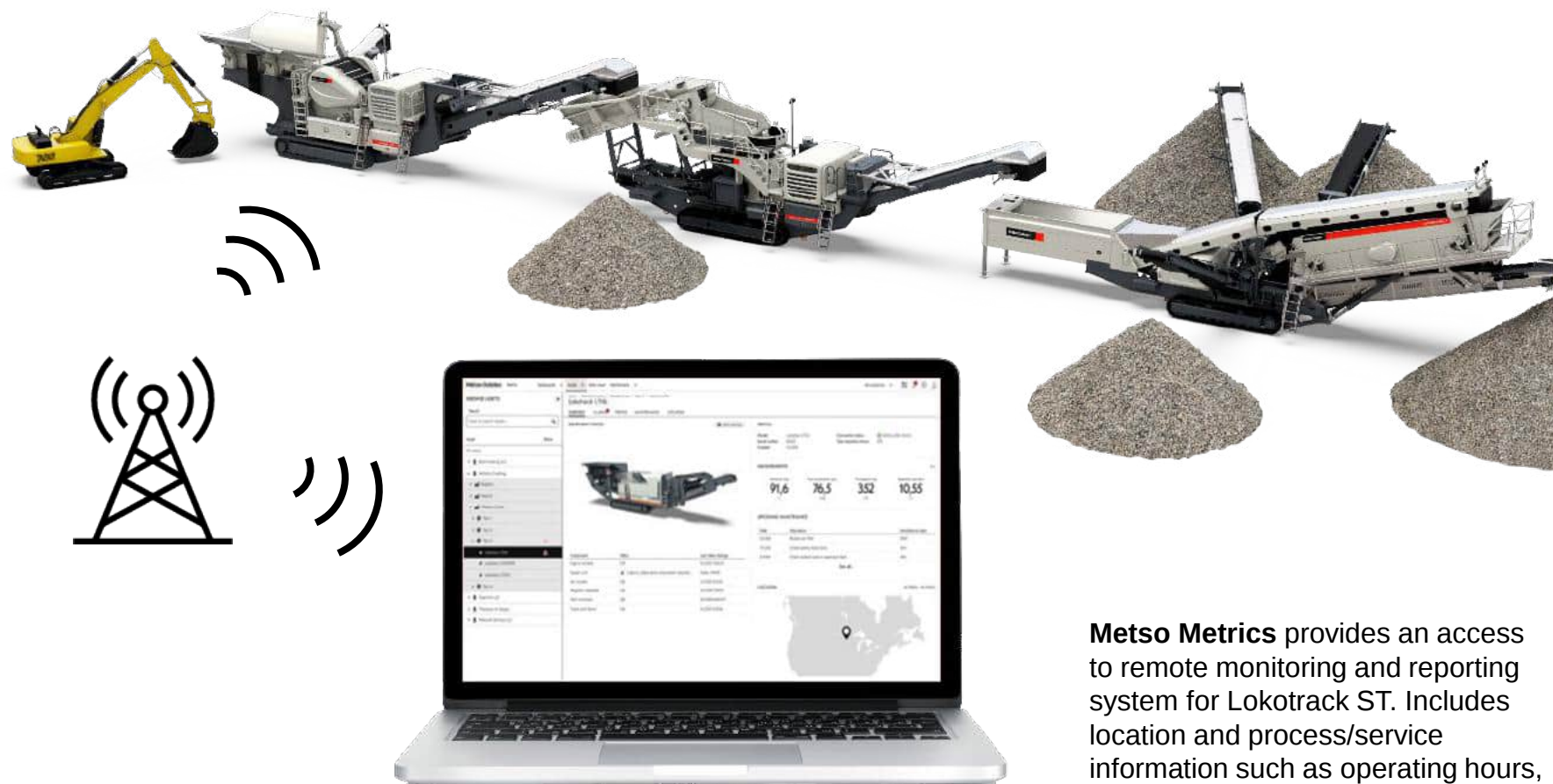
Many viewers, one in control



Higher productivity
With lower overflow risk the process can be run closer to the maximum capacity

Wireless interlocking

Metso Metrics



Getting information in actual real time to be able to react quickly!

Availability
Performance
Reliability
Profitability

Seamless access to equipment performance data

Metso Metrics provides an access to remote monitoring and reporting system for Lokotrack ST. Includes location and process/service information such as operating hours, fuel consumption, and diagnostics. Hardware included as a standard.

Capacity & process options

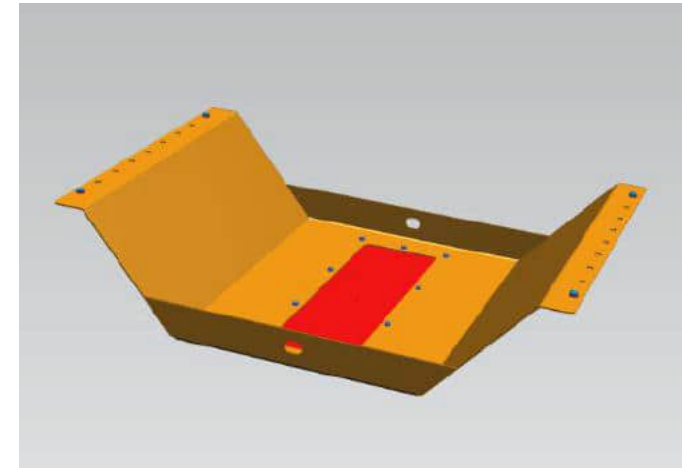


Tipping grid is a robust, heavy duty grid assembly to prevent **oversized feed material from entering the process**. Variable **working angle**.

Radio remote control of hydraulic tipping grid, **hydraulically raised** for removing oversize material. Grid bar spacings: 100, 130, 150 mm (4, 5, 6 in).

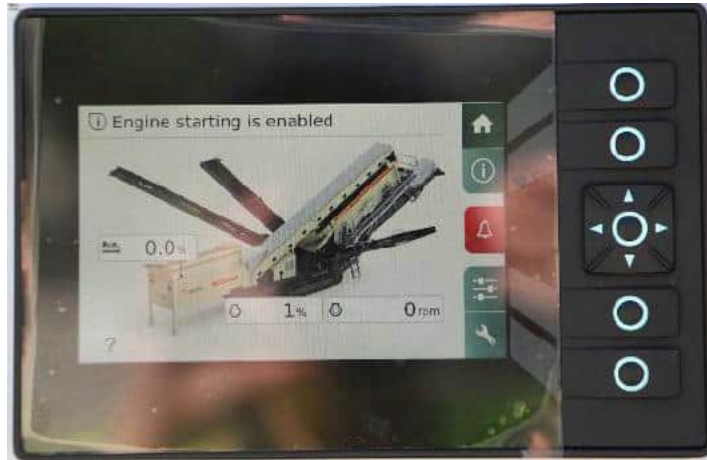


Two-deck vibrating grid with heavy duty grizzly bars on top deck and screen mesh deck as the second deck. Robust, heavy duty grid assembly to prevent **oversized feed material from entering the process**. Vibrating grid angle can be **hydraulically adjusted**.



Rock box protects feeder belt when ST is fed directly by another LT/ST. Usually selected when the unit is configured **without grid** (tipping or vibrating).

Easy access on service locations and safe operation



IC control unit provides a **safe and easy way of operation**.



No need to **tilt platforms down** or **remove ladders** for transportation. **Lifting conveyor** can be hydraulically adjusted for easy access to screen decks.



Important service points located **on the ground level and easily accessible**.



Risk analysis is integrated to the design of new modules to minimize the possibility of accidents



Large platforms for easy and safe access to all service locations.

Safety & environment options



High pressure water spraying system for main conveyor and product conveyor for binding dust particles. Sprinkler type nozzles located on main conveyor and product conveyor.



Dust encapsulation includes aluminum sheet covers of conveyors for improved dust control.



Array of **led work lights** located at the top of the lifting conveyor.



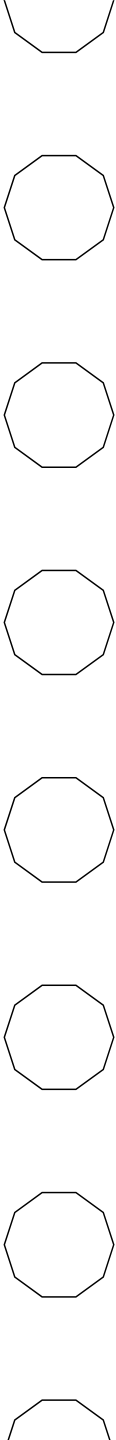
Options, full list

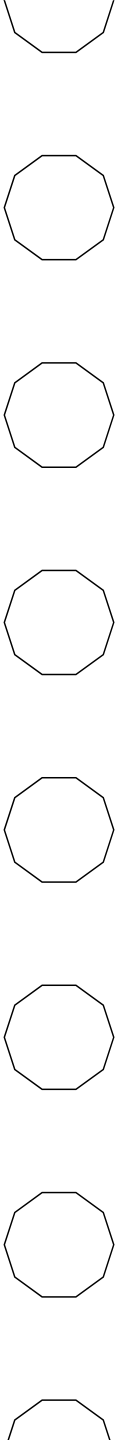
All options available for ST3.8 and ST4.8

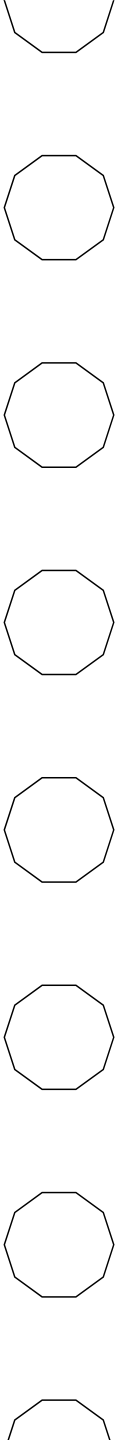
Options
Metso Metrics
Remote radio control
Rock box
Tipping grid
Vibrating grid
Side conveyor angle adjusting
High pressure water spray system
Dust covering for main and product conveyors
Toolkit
e-Power

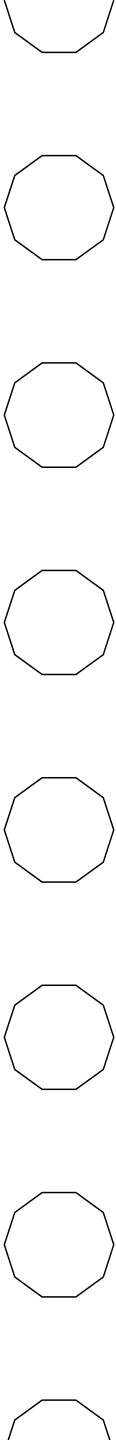
Options
Work lights, LED
Interlocking cable
PTO
Main conveyor lifting
Main conveyor anti-roll back
Climate kit
Filter cartridge kit
Fuel operated pre-heater for diesel engine
Block heater for diesel engine
Carving scraper for product conveyor

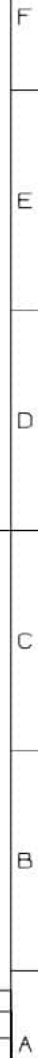
Large variety of options enable flexibility for **different applications**.

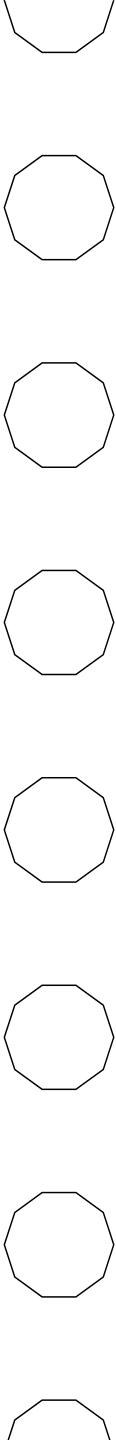












Applications



Lokotrack ST3.8 - Germany



- Feed: dolomite 0-60mm
- Production fractions 0-3 mm / 3-8 mm / 8- mm
- Screen media Trellflex

Lokotrack ST3.8 - Japan



- LT106+LT300HPS+LT7150+ST3.8+CT3.2
- Feed: sandstone
- Aggregate products
- Products 0-5 mm, 5-20 mm & 20-40 mm
- Commissioning of plant March 2014

Lokotrack ST3.8 - Turkey



- LT116+LT1213+ST3.8+LT7150+ST4.8
- Water channel construction project

Lokotrack ST3.8 – Portugal, Secil Britas



- ST3.8 + ST620

Lokotrack ST3.8 – Antarctica, McMurdo station

- ST3.8 + LT200HP



Lokotrack ST4.8 – Japan

- Tokio-Sekkai quarry in Mito
- LT106+LT200HP+LT7150+ST4.8
- Feed material sandstone
- Aggregate products
- Products 0-5 mm, 5-13 mm, 13-20 & +20 mm
- Commissioning of plant May 2013



Lokotrack ST4.8 – China

- LT106+LT200HP+ST4.8
- Tian Chang quarry Wenzhou
- Aggregate for railroad tunnel construction
- Products 0-5 mm, 5-16 & 16-32 mm

Lokotrack ST4.8 – Kazakhstan

- KAZ Sinemidas Story
- LT106+LT220D+LT7150+ST4.8
- Feed 500 mm coarse Basalt
- Capacity 180 tph
- End products 0-5 mm, 5-10 mm, 10-20 mm, 20-40 mm aggregates



Lokotrack ST4.8 – Czech Republic

- LT1110+ST3.5+ST4.8
- Feed: 400 mm Limestone
- Capacity 200 tph
- End products: 0-2 mm, 2-5 mm, 4-8 mm, 8-16 mm, 16-22 mm



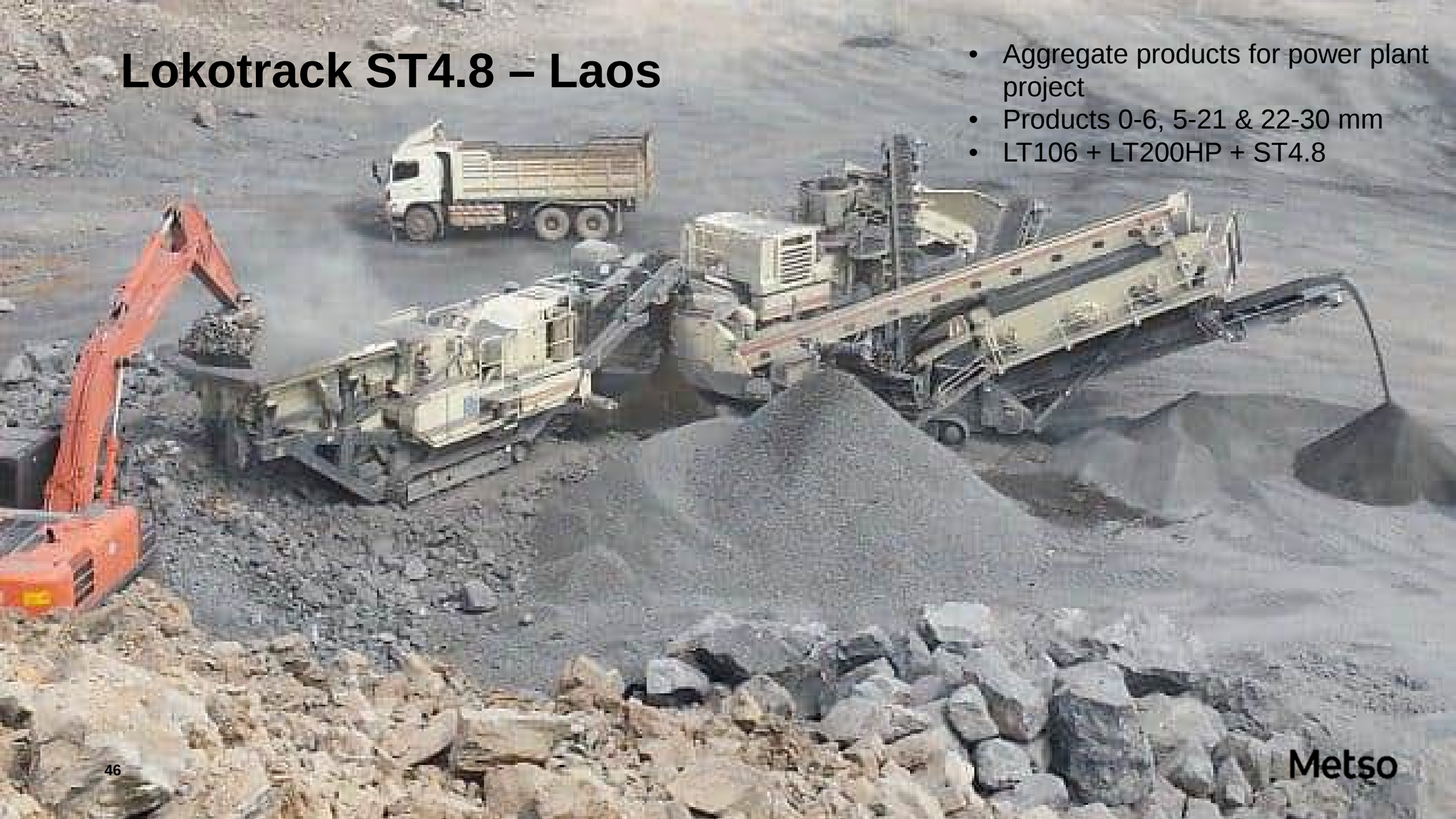
Lokotrack ST4.8 – Thailand, Pae Thamrongwit, Nan

- LT106 + LT200HP + ST4.8
- Aggregate products for power plant project
- Products 0-6, 5-21 & 22-30 mm



Lokotrack ST4.8 – Laos

- Aggregate products for power plant project
- Products 0-6, 5-21 & 22-30 mm
- LT106 + LT200HP + ST4.8



Lokotrack ST4.8 – USA, Georgia

- LT106, ST2.8, LT200HP, ST4.8, LT200HP



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Partner for positive change



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