KOMPTECH

TECHNOLOGY FOR A BETTER ENVIRONMENT

MOBILE DRUM SCREENS

JOKER PRIMUS MAXX MUSTANG MAGNUM

WIDE RANGE OF APPLICATION
ROBUST AND RELIABLE
HYDRAULIC OR ELECTRIC DRIVE
MACHINE FOR WISH

HIGHLIGHTS

- Broad product range for any performance requirement
- Robust, proven solutions based on long experience
- Extensive options to meet individual needs
- Power options for the Maxx and Mustang: diesel-hydraulic, diesel-electric or all-electric operation
- Choice of standard screen drums with fixed hole size or flexible system with quick-change screen segments

THE RIGHT **MACHINE**

In modern material management, screening (separation by different sizes) continues to be a major process step.
With many years of experience in the construction of screening machines, and continual development, Komptech supplies drum screens that perform this key process step highly effectively, reflecting our focus on innovative technology and maximum customer benefit. Our product portfolio includes five model ranges tailored to the requirements of the market.

The Joker is the ideal entry-level screening machine. The Primus is the right choice when performance needs increase.
The performance levels of the Maxx and Mustang meet the demands of high throughput and continuous output.
At the top end of the range is the Magnum, with a performance normally only found with stationary machines.

01

Compost

Green compost, organic compost, sludge compost

Komptech drum screens demonstrate their talent for screening when used for composting. Controllable hopper and drum rotation speeds allow precise material alignment. Overfilling of the drum is prevented by load-dependent hopper control. In the drum itself, a screw conveyor ensures full utilisation of the screen area. A standard screen drum or a drum with exchangeable screen segments can be used for screening, depending on requirements.

02

Wood/biomass

Shredded waste wood, woody biomass, wood chippings, bark

Komptech drum screens are also effective with high-bulk material. This is because the feed hopper is tailored to the drum size (plus a generous reserve). Steep hopper sides prevent bridging, and a conveyor with T-cleats feeds the material into the drum reliably. Extended discharge belts allow for high piles, and with a width of up to 1000 mm there are no blockages on the conveyor belt.

03

Soil/gravel

Excavated material, sand, gravel, light-weight building rubble

Heavy materials do not present problems for Komptech drum screens. Solid contraries are kept back by a hinged hopper pre-screen. A hopper belt controller prevents skewing of the belt, while drums with up to 10 mm wall thickness allow for long service life. Controllable belt speed and bolt-on cleats on the oversize fraction belt keep stones from rolling back.

04

Waste

Shredded bulky, household and residual waste, re-fuse derived fuels

Ample space between screen drum and side walls also makes operation with large screen hole sizes smooth. For these hole sizes in particular, outside scrapers are more effective than circular brushes for drum cleaning.
For residual waste screening, a special drum with anti-dirt strips is also available. Large side doors and flaps provide simple access for cleaning and servicing.

HIGHLIGHTS

- Sturdy frame, mounted on highly mobile single-axle trailer
- Opposing discharge belts for fine and oversized particles save space
- Screen drum with fixed hole size, or flexible system (core trommel with quick-change screen segments)

JOKER
SMALL IS BEAUTIFUL

The Joker is an entry-level mobile drum screen. The easy manoeuvrability of the single-axle trailer and its compact and sturdy design make the Joker an ideal solution for horticulture and landscaping, for smaller composting systems and wherever mobile screening is needed.

Simple operation and tried and tested technologies give it high operational reliability. The learning curve is short, and the Joker provides powerful screening despite its compact dimensions.

01

Compact and manoeuvrable

The Joker is built on a 7.5 m trailer with a single central axle that is easy to position even in tight spaces. The manually operated front support allows quick uncoupling, safe assembly and simple adjustment of the screen drum tilt.

02

Discharge belts only

The well-conceived design of the Joker requires only two conveyor belts – the width of the fine particle belt is the same as the length of the screen area. It starts underneath the drum and handles both collection and discharge. The coarse particle belt hinges out at a right angle to the machine. This arrangement results in extremely compact dimensions, both in transportation and in working position.

03

Proven solutions

A fuel-efficient diesel power plant with engine monitoring delivers the power. The discharge belts can be raised and lowered simply and practically with a hand winch. The drum is moved by a hydraulic drive, and the sturdy roller chain provides reliable power transfer.

Details

Drive	
Diesel engine (kW):	16.5
Material feeding	
Hopper volume (m^3):	> 2.3
Screening drum	
Length (mm):	2440
Diameter (mm):	1800
Dimensions	
Transport dimensions L x W x H (mm):	7650 x 2550 x 3800
Throughput (dependent on material)	
Throughput performance (m^3/h):	up to 35

04

Flexibility with screen segments

The use of interchangeable screening segments made of highly wear resistant spring steel is particularly beneficial for multi-site use, as different mesh sizes can be transported with the screening machine. The segments are mounted on a core drum with a quick fastener (available for all Komptech drum screens).

05

Easy accessibility

The screen drum is freely accessible by opening the large side door. To change segments, the drive chain is loosened and the drum lifted out of the machine with suitable lifting gear.

HIGHLIGHTS

- Large hopper for efficient working
- Steep side walls prevent bridging
- Problem-free servicing with easy accessibility to all power units and simple drum change system
- Choice of screen drum with fixed hole size or flexible system with quick-change screen segments

PRIMUS
A PERFECT FIT

For higher throughput needs, the Primus is the next step up. Designed as a tandem central axle trailer, the Primus not only has 16 m² of effective screening area, it also offers a screen length able to handle big jobs. Heavy-duty components, manually folding discharge belts, the hydraulic drum drive via roller chain and a fuel-efficient diesel unit give this machine an excellent price/ performance ratio. Options are available that allow users to configure the machine for their specific requirements. The Primus is the right solution for smaller and mid-sized composting plants, as well as for getting into contract screening.

01

Hopper interface

Steep side walls in the hopper itself prevent material bridging. Flow is ensured even with moist material. The hopper conveyor belt drive roller has a special coating to prevent slippage with heavy material. Also, a mechanical straight running guide automatically keeps the hopper belt in the desired position.

02

Reliable drum cleaning

A freely revolving circular brush, adjustable from below, cleans the screen drum. Its position opposite the screen side presents no risk of contamination by the screen material. Optional spring steel scrapers keep the brushes clean.

03

Well conveyed

The discharge belts can be folded out manually from the transport to the working position using a hand winch. In its base configuration, every screen (except the Joker) has a sturdy cleated V-belt for the fine fraction and a smooth belt for the oversize fraction with bolt-on, replaceable cleats that minimise roll-back of cubic pieces.

Details

Drive	
Diesel engine (kW):	38
Material feeding	
Hopper volume (m^3):	> 3.0
Screening drum	
Length (mm):	4000
Diameter (mm):	1450
Dimensions	
Transport dimensions L x W x H (mm):	9750 x 2550 x 4000
Throughput (dependent on material)	
Throughput performance (m^3/h):	up to 70

04

Piled high with belt extension

A conveyor extension increases the Priums discharge height to almost three metres. This convenient working option is also available for all other Komptech drum screens (except the Joker).

05

Separating off the coarse fraction

When working with excavated material, gravel or lightweight building rubble, a hopper pre-screen prevents damage by solid contraries. The sturdy coarse material grid folds hydraulically by radio remote control and has a chute to eject contraries beside the machine (also available for Maxx, Mustang, Magnum).

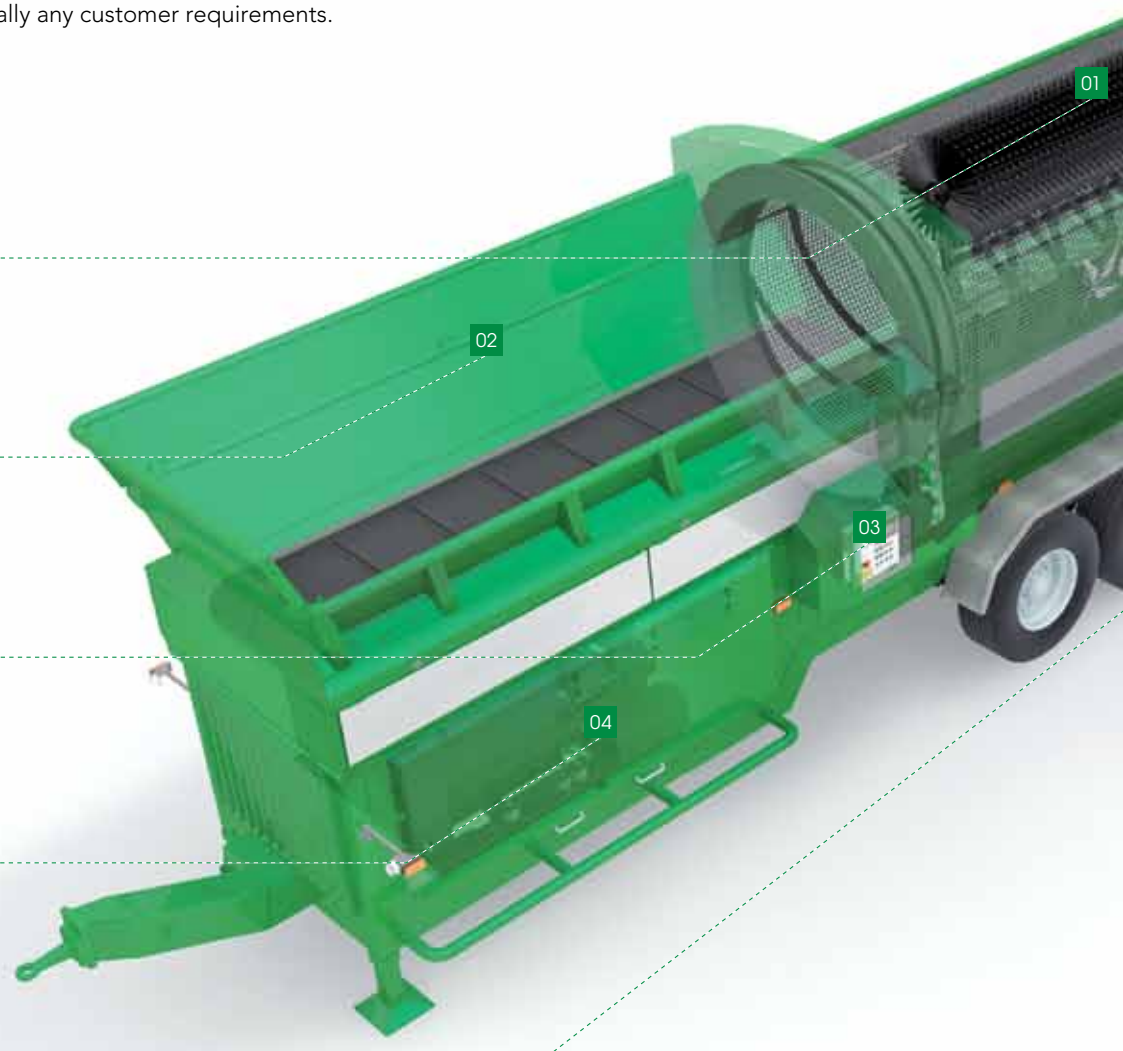
MAXX MUSTANG

Professional technology for the highest expectations

The Maxx and Mustang drum screens fully meet tough requirements. Rugged, reliable and featuring with modern power plants and high ease of operation, they satisfy even the most demanding customers. Their ample reserves of power ensure top performance in all applications. Both machines have a tandem central axle trailer design and a generously-sized feed area which can handle large front loader scoops. The patented DRUMGRIP drive system provides smooth, low-noise and low-wear power transmission to the drum.
With a 200 mm wider and 1000 mm longer screen drum, the Mustang has 1/3 more effective screening area. The powerful engine converts this additional screening area into higher throughput. A comprehensive range of useful options meets virtually any customer requirements.

Lots of room in the hopper

» >4 m fill length, >5 m³ volume
» Automatic hopper belt controller for precise straight line travel



01
Easily adjustable round brush

02
Steep hopper side walls

03
Ideally positioned operator console

04
Fuel-efficient diesel engine

05
Discharge belts hydraulically adjustable

Maintenance-friendly

» Engine compartment accessible from all sides, engine unit also extendable
» Hopper belt change possible on-site

Low-wear drum drive

» Patented, self-tensioning and load-dependent DRUMGRIP drum drive
» Smooth friction power transmission

Simple drum change

» Side wall folds out hydraulically 90° (with or without drum)
» Easy access for cleaning

Clean drum

» Segment outer scraper for cleaning large hole sizes
» Adjustable circular brush along the entire screen length

Discharge as desired

» Wider and longer belts with controllable belt speed
» Magnet rollers for Fe separation

Details

	Maxx	Mustang
Drive		
Diesel engine (kW):	62.5	70
Material feeding		
Hopper volume (m³):	> 5.0	> 5.0
Screening drum		
Length (mm):	4500	5500
Diameter (mm):	1800	2000
Dimensions		
Transport dimensions L x W x H (mm):	11250 x 2550 x 4000	11950 x 2550 x 4000
Throughput (dependent on material)		
Throughput performance (m³/h):	up to 120	up to 160

Nice to have

» Integral wind sifter (Maxx)
» Hopper sensor controller
» Track drive (Maxx, Mustang)
» Cleanfix fan, etc.

HIGHLIGHTS

- Up to 75% lower energy costs through high efficiency electric drive
- Lower wear and maintenance costs
- Simple, convenient operation through console with schematic
- Expanded range of applications through optional mains operation
- DRUMGRIP drive with the ruggedness of a chain and the quietness of a friction drive

THE ELECTRICAL **ADVANTAGE**

Electrical drive is available as an option for the Maxx and Mustang drum screens. On these E versions, electric motors are used in place of hydraulic drives. This saves energy, because electric motors have markedly higher efficiency than hydraulic systems. Power comes directly from the mains, or produced by the on-board diesel generator if necessary. The auxiliary hydraulic system is used only for machine set-up. The E versions of the Maxx and Mustang are available with and without generator; the generator version also has an optional mains connection. For operators for whom upfront and operating costs are key factors, the Maxx E and Mustang E are investments which pay back within a short period of time.

01

Reduced operating costs

Compared to diesel-hydraulic operation, electric uses less energy and saves on replacement/ consumable parts and servicing costs.

Savings potential of electric drive (mains mode):
» up to 75% lower energy consumption
» up to 30% lower consumable parts costs
» up to 25% lower operating costs
» no servicing of the diesel unit or hydraulics unit

Savings potential of the diesel-electric drive (generator mode):
» up to 25% lower energy consumption
» up to 15% lower consumable parts costs
» up to 5% lower operating costs
» no servicing of the hydraulic system

02

Alternative to stationary machines

If the power comes from the power socket, no exhaust gases are produced and work can be performed in enclosed buildings. This is a cost-effective alternative for stationary jobs in which a feed hopper is required. For this operating mode, higher dust incidence poses no problem either (no diesel unit, no radiator).

03

Flexible generator solution

The removable generator version provides a high degree of flexibility. With it, it is possible to run the machine inside where no electrical connection is available. The generator pack is taken out of the machine, moved with a forklift and placed outside in a rack frame, together with its housing.

04

Simpler operation

Thanks to its fully electronic controller, this drive concept features the highest ease of use.
The display mode shows the operating status, and all functions are clearly visible and easily configurable. An automatic start-up and idling feature simplifies start of operation.

05

More torque

All components that have proven so successful on the Maxx and Mustang, such as the DRUMGRIP drum drive, were kept for the E version. But the power on the E version comes from an electric motor which can be precisely controlled with frequency converters, and also delivers higher torque to the drum.

Details

Maxx E	
Electrical power input (kW):	26
Diesel generator (kVA):	48
Mustang E	
Electrical power input (kW):	30
Diesel generator (kVA):	48

See Maxx and Mustang for other specifications

HIGHLIGHTS

» Fully mobile, two-axle semi-trailer design

» Stiff frame with four supports provides excellent stability even on adverse terrain

» Options:

- Screen drum with fixed hole size
- Flexible system with interchangeable screen segments
- Special drum with anti-dirt strips for screening residual waste
- Separated screen drum for three-fraction screening

MAGNUM
DO MORE

The Magnum is the largest hydraulically driven drum screen in the Komptech product range. After a technical upgrade, the machine now boasts even more functional design and impressive technical features. Whether the Magnum is used for waste screening, composting or biomass treatment, it always delivers performance in the stationary drum screen category, but with the benefits of a mobile machine. Here today, there tomorrow, but always ready for use immediately and extremely cost-effectively.

01

Fully mobile with semi-trailer

Despite its impressive dimensions, transportation and set-up of the Magnum present no problems. The two-axle semi-trailer has a solid frame with hydraulic front and rear supports for a solid footing.

02

A lot goes in

The hopper is sized to match the high screen performance. Its 7 m³ volume makes for efficient working. The free fill length of 4.4 metres allows large wheel loader scoops to be used without problem.
When used for soil and rubble, a hydraulically folding hopper pre-screen can be mounted as an option.

03

A lot comes out

47 m² effective screen area demands a powerful discharge system, and the Magnum has it, with a wide collection belt and 1000 mm wide discharge belts. High piles are possible with standard or long discharge belts, up to a height of 3.5 m with a belt extension.

Details

Drive	
Diesel engine (kW):	96.5
Material feeding	
Hopper volume (m³):	> 6.5
Screening drum	
Length (mm):	7465
Diameter (mm):	2200
Dimensions	
Transport dimensions L x W x H (mm):	14040 x 2550 x 4000
Throughput (dependent on material)	
Throughput performance (m³/h):	up to 250

04

Drum drive: 2 x „DRUMGRIP“

The smooth, low-wear DRUMGRIP drive system is used on both inlet and outlet sides. In conjunction with tandem supporting wheels, this drive concept stands up to the toughest use on a continual basis.

05

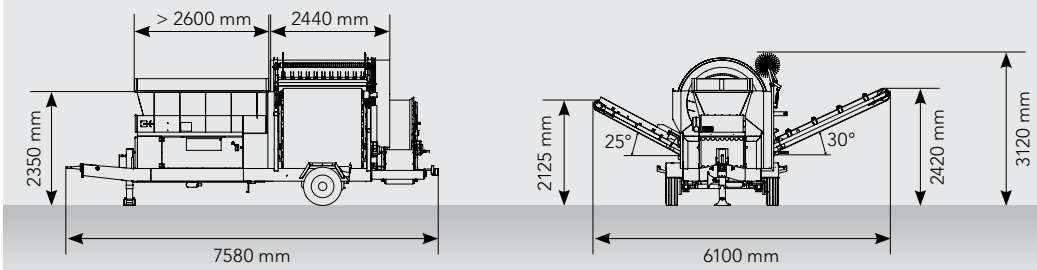
3 fractions on request

The Magnum is also available as a 3-fraction screen machine. The fine particle and medium particle belts can be mounted on the right or left. The discharge and fill sides can be switched afterwards.

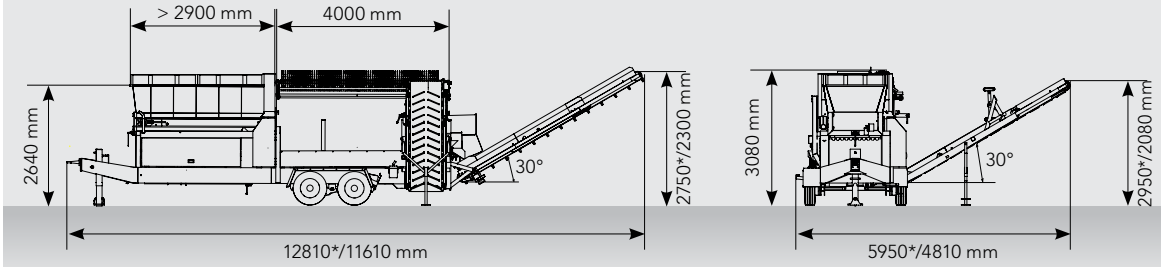
TECHNICAL SPECIFICATIONS

	JOKER	PRIMUS	MAXX MAXX E	MUSTANG MUSTANG E	MAGNUM
Drive					
Diesel engine (kW):	16.5	38	62.5	70	96.5
Electrical power input (kW):			Maxx E: 26	Mustang E: 30	
Diesel generator (kVA):			Maxx E: 48	Mustang E: 48	
Material feeding - feed hopper					
Hopper volume (m^3):	> 2.3	> 3.0	> 5.0	> 5.0	> 6.5
Filling length (mm):	> 2600	> 2900	> 4000	> 4000	> 4400
Filling width (mm):	1135	1340	1675	1675	1675
Filling height (mm):	2350	2640	2800	2800	3100
Screening drum					
Diameter (mm):	1800	1450	1800	2000	2200
Length (mm):	2440	4000	4500	5500	7465
Effective screening area (m^2):	10	16	22.5	30	47
Drum rpm:	14	max. 21	max. 23	max. 23	max. 19
Material discharge (standard)					
Max. discharge height coarse fraction (mm):	2125	2300	2550	2550	3050
Max. discharge height fine fraction (mm):	2420	2080	2150	2150	2700
Dimensions					
Transport dimensions L x W x H (mm):	7650 x 2550 x 3800	9750 x 2550 x 4000	11250 x 2550 x 4000	11950 x 2550 x 4000	14040 x 2550 x 4000
Working dimensions L x W x H (mm):	7580 x 6100 x 3120	11610 x 4810 x 3080	13200 x 5000 x 3750	14020 x 5000 x 3900	18300 x 7000 x 3920
Weight (t):	5.0	9.0	16.0	16.0	26.0
Throughput (dependent on material)					
Throughput performance (m^3/h):	up to 35	up to 70	up to 120	up to 160	up to 250
Options					
Conveyor extension, magnet drum, scraper for round brush, central lubrication, hopper pre-screening, hopper sensor controller, remote control, air suspension, feed device, attachment shoe, adjustable belt speed, noise insulation package, wind sifter (Maxx Integral) and more					

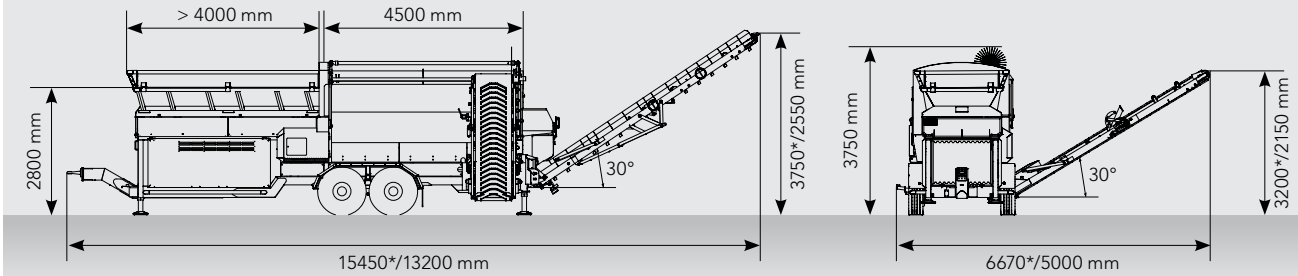
JOKER



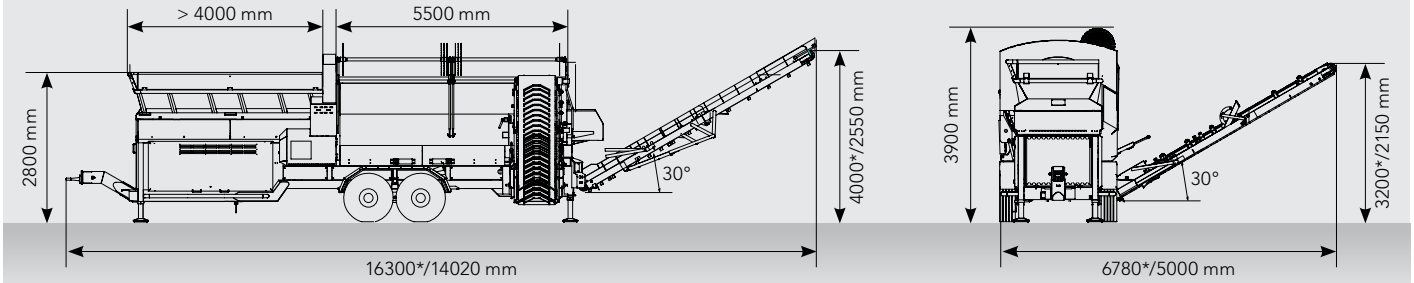
PRIMUS



MAXX



MUSTANG



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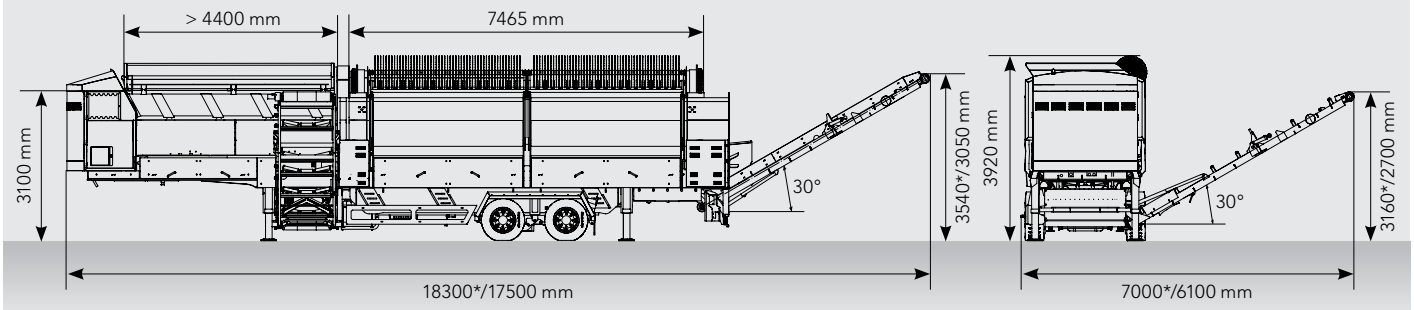

*Option conveyor extension

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