



1. Product information 2017 SEPARATING - SCREENING



SM-SERIES Trommel screen machine SM 720 SA Plus



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Product Description

The SM 720 Profi will be replaced by the SM 720 SA Plus (in North-America referred as: *"SM 726 SA Plus North America"*) effective March 2017. The product update includes the longer discharging transport belt also used in the SM 620, and the larger feeding hopper of the SM 620 SA Plus.

The new machine is equipped as standard with a powerful, economical Deutz diesel engine (model TDC 3.6 L4, 90 kW), which has been used in the predecessor model as well. However, the SM 720 SA Plus employs the Euromot IV/Tier 4 final variant. The security concept of the SM series, based on contact-free door switches, has also been applied to the new machine.

Highlights of the SM 720 SA Plus include the 38.8 m² screening area, the 5.5 m long discharging transport belt, and the 7.2 m³ feeding hopper. All of this makes the machine one of the most powerful, yet effortlessly movable screening solutions available.

Functional Description

The SM 720 SA Plus is a mobile 2-fraction drum screen machine. It consists of the main components feeding hopper, screen drum, conveyor belts, and 2-axle semi-trailer chassis. Sievings are fed into the 7.2 m³ hopper by way of wheel loader, excavator, or conveyor belt. The automatic control system ensures the continuous, load-dependent feeding of the hopper. Thus, the machine can be used to its maximum capacity while reliably avoiding overload.

The SM 720 SA Plus provides a total screening area of 38.8 m². It features an internal auger drill, the transmission chain is arranged on the outer circumference.

While rotating, the screen drum separates the sievings into fine fraction and coarse fraction, which are transported along the auger drill in longitudinal direction. The drum rotates at an adjustable speed of up to 20 rpm. Both fractions are discharged separately via conveyor belts, piling up at the rear (fine material) and sideways (coarse material).





Using a wheel loader or forklift, the screen drum can be removed from the machine without the use of tools. Changing drums requires a mere 15 minutes.

The machine frame rests on a 2-axle semi-trailer chassis with air brake system and illumination unit, in full accordance with road traffic regulations. It is approved for transport on a semi trailer truck at speeds of up to 80 km/h, making it the perfect solution for multisite operation. You can easily fold all overlaying parts, changing the machine from working into transport set-up won't take you much longer than 15 minutes. In this set-up, the overall width and transport height amount to 2.55 and 4.0 m.

Product Variants

The SM 720 SA Plus can be operated using a variery of screen drums in different mesh sizes. Basically, there are two configurations available:

- Solid bowl drum with sheet thickness from 6 to 12 mm in mesh sizes from 10 to 100 mm.
- Screen drum with mounted mesh wire segments in mesh sizes from 5 to 40 mm.

Another option, using the machine as a 2-fraction star screen machine, is still in the planning stages. In this configuration, the screen drum is replaced by star screen inserts, which are not yet available though.

By way of additional equipment, the SM 720 SA Plus can also be turned into a multi-fraction screening machine solution. The following components are available:

- Stone grating or vibrating screen to be applied on top of feeding hopper (for coarse fraction)
- Air separator (for coarse fraction)
- Separation of ferrogenous material (fine/coarse fraction)





Areas/Limitations of Application

You can use the SM 720 SA Plus for a variety of screening tasks dedicated to the following types of material:

- Mixed manure, bark, mulch
- Excavated earth, native soil
- Green waste (pre-processed)
- Old forest (pre-processed)
- Gravel, sand
- Cinder, ashes
- Building site rubble, mixed construction waste
- Domestic and commercial waste (pre-processed)

In general, the SM 720 SA Plus will process any type of material given that its consistency (its humidity in particular) allows for fractioning within the screen drum. Therefore, drum or star screen insert should be selected accordingly, paying close attention to mesh size. Larger sizes allow for screening even at higher levels of humidity, whereas screen drums with mounted mesh wire segments are preferable if you want to process damp materials using small mesh sizes (e.g. < 10 mm for mixed manure at a TS < 60 %).

The machine is perfectly suited for screening tasks requiring performance rates from 100 to 250 m³/h, operation in different locations, and frequently varying types of material.

With the SM 720 SA Plus Doppstadt offers a compact, mobile, and powerful screening solution bearing the quality seal "Made in Germany". Adding up to 3 hydraulic connections, the machine turns into a multifunctional sorting system.

Most supplementary components can be easily integrated thanks to the updated hydraulics concept of the SM 720 SA Plus. It goes without saying that user friendliness and easy maintenance are part and parcel of this new machine at no extra cost, as it it the case with all Doppstadt products.

Simply put, the SM 720 SA Plus leaves nothing to be desired with regard to flexibility of configuration and scope of operation.



Trommel screen machine SM 720 SA Plus

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The highlight of the machine is the **7,1 m long and with 38,8 m² screening area equipped screen drum** that sets highest benchmark concerning screening performance. In combination with the **7,2 m³ volume of the hopper** and the **extended length output conveyors** the optimum screening performance can be achieved now. The **drum drive power is increased by 40%** and will offer sufficient performance for all jobs.

Machine engine meets exhaust gas norm **Euromot IV / Tier 4 final.** To achieve the required exhaust quality the Deutz Dieselmotor TDC 3.6 L4 is equipped with a maintenance free catalysator (DOC) like in Euromot IIIb / Tier 4 interim and additional **AdBlue injection system.**

Technical Data Diesel Engine:

working RPM diesel engin performance at working RPM diesel consumption AdBlue consumption 1.800 rpm 85 kW 9 - 12 l/h ca. 0,5 l/h

The operation concept of the machine is optimized. Adjustment of drum speed as well as the Start / Stop of the automatic operation can be done now also at the rear of the machine.

Although the machine has gigantic dimensions on screening drum and feeding hopper it is **easy to transport on the road without limitation** as semitrailer (5th wheel) without need for special road transport license

Transport Dimensions:

length 13,25 m / width 2,55 m / heigth 4,0 m

Due to total permissible weight of 24 t and king pin load of 8 t it is also possible to transport additional equipment like feeder stone grid and other availabe equiment together with the machine without disassembly.





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