

**Doppstadt**

# SM SERIES

TROMMEL LINE



**BEST SOLUTION. SMART RECYCLING.**

## **BENEFITING FROM 50 YEARS OF EXPERIENCE.**

The market continues to place new demands on your work. Thanks to our many years of cooperation with recycling companies around the world, we know exactly the challenges that you face. This knowledge flows into our research and development process of every machine.

When it comes to separation technology, we are pioneers. Our drum screen machines have been setting standards for decades as a result of our variable process technology. They retain their value, deliver good screening results over the long term and thus ensure that you have an economic advantage. Every machine can be precisely adapted to your requirements.



## **SEPARATION TECHNOLOGY FROM THE TECHNOLOGY LEADER.**

- The machines feed the material depending on the load of the screen drum. That ensures a high throughput and consistently good screening results.
- The cassette design, large doors and the swivel-out drive make maintenance and service easier for you.
- You can change the screening drums directly on site within 15 minutes.



### **SMART SCREENING WITH OUR TROMMEL LINE**

#### **RUGGED SYSTEMS.**

Be it in landfill mining or the processing of waste wood, compost, biomass, bio-waste, commercial or mixed construction & demolition waste, Doppstadt drum screens ensure reliable separation. They control the material feed in line with machine loading and ensure uniform sieving results and high process reliability.

#### **HIGH EFFICIENCY.**

Its load control and easy handling ensure that optimal material quality is delivered at high throughput rates. At the same time, the rugged design, good accessibility and high degree of serviceability keep downtimes to a minimum. This combination makes the drum screens from Doppstadt particularly economical.

### **HIGHLY VERSATILE.**

Regardless of whether you have to process difficult materials or handle frequently changing tasks, with the screen drum machines of our SM series, nothing will throw you off balance quickly now. In keeping with the motto "Smart Screening", we offer you in various performance classes exactly the right machine for your yard. It screens soil, compost, bark mulch, commercial waste, waste wood, demolition waste, scrap, sand, gravel and so much more reliably and continuously.

All drum screens can be ideally combined with Doppstadt shredders. In our portfolio, you will find exactly the machine that suits your requirements in terms of size and performance.

### **ABSOLUTELY EXPANDABLE.**

The machines can be supplemented with other process equipment such as coarse fraction separation (stone grid and vibrating screen), windsifter or magnet in order to be able to separate the fractions optimally.

If the tasks change, you can turn to our "tool box" and adapt your machine. It is quite simple. All models are already prepared in the factory for many extensions.



## EVERYTHING THAT MAKES YOUR WORK EASIER.

A screen drum machine from Doppstadt is ready for operation in less than five minutes thanks to the hydraulically folding conveyors. The material feed is controlled in line with the drum load, the large screening areas are utilized fully. The low loading height of 2.9 m and a hopper capacity of up to 7 m<sup>3</sup> make loading easy for you.

Different chassis options such as drawbar, semi-trailer or track perfectly match your mobility requirements so you can move the machine quickly around on site or transport it to other locations.

### SMART CONNECTION.

The decentralized control system in conjunction with its radio system offers a high level of diagnostic capabilities via WiFi or Bluetooth interfaces, thus supporting your Doppstadt service partner for carrying out maintenance and repairs. The use of Doppstadt's cloud-based telematics solution provides you with visualized access to your machine parameters in real time.

## EFFICIENT ELECTRIC MOTORS.

- Perspective lower energy costs: Electricity is cheaper than diesel fuel and does not need to be stored.
- High potential for savings: You can operate the machine with self-generated electricity.
- Ideal for indoor use in light of legal framework conditions, such as the amendments of the "TA Luft" (*Technical Instructions on Air Quality Control*): There are neither exhaust emissions nor engine noise.
- Subsidized purchase: You have the opportunity to apply for funding.

Of course, you can also get the SM with fuel-efficient diesel engines that meet the requirements of the Stage V and IIIA emission standards.



### 1 STABLE FOOTING.

You can use the hydraulic supports or crawler track chassis to regulate the incline of the mobile machine. That ensures a stable footing and an uniform flow of material even when the terrain is uneven.

### 2 GREAT MOBILITY.

Semi-trailer machines have an integrated slip-on coupling; for drawbar machines, it is included and attached to the machine. This allows you to move your drum screen machine easily and quickly with the wheel loader. The tracked version offers maximum mobility comfort on side.

### 3 COMFORTABLE LOADING.

The low loading edge of 2.9 m and a hopper capacity of up to 7 m<sup>3</sup> make it easy for you to load the machine.

### 4 STEADY MATERIAL FEED.

The load-dependent control of the hopper doses the material feed into the drum, which leads to consistent screening results at a high throughput, even with varying material properties.

### 5 EASY TO OPERATE.

The machine can be regulated using the central multifunctional display. As a result, you have a clear view of the material behavior in the screen drum. There are three different control behaviours available for the load-depending control. You can also save various settings and call them up if necessary at any time. While you are sitting on the wheel loader, you can control the SM conveniently with the remote control (optional).

### 6 VARIABLE CONVEYORS.

Coarse material is discharged via the rear conveyor, while fines are discharged via the side conveyor. The speed of the conveyors is variable (optional). The machine offers a wide range of options, such as magnet chutes for separate ferrous metals, or a stone trap for ejecting mineral components.

### 7 DIRECT DRIVE.

The screen drum is driven directly via the welded chain. That prevents, on the one hand, any slippage with heavy materials and, on the other hand, it ensures that the drum can be replaced more quickly as needed.

### 8 EASY MAINTENANCE.

Thanks to large, swing-out doors, the engine unit and hydraulic pumps are easily accessible. Water and oil cooler are equipped with an additional dust protection filter.

### 9 EFFICIENT CLEANING.

A rotating, hydraulically tiltable brush continuously cleans the drum and prevents clogging of the mesh. It can be actively powered (optionally) if you want a more aggressive cleaning performance.

## YOU HAVE ALL OPTIONS.

Your challenges are varied. That is why our machine portfolio includes different size classes, so you can choose the machine matching your annual volumes. Different chassis offer you exactly the mobility that you need for your operations. Thanks to the wide variety of options available, you can react quickly and precisely to all requirements.



*"We have a drum screen machine from Doppstadt with 18,000 hours and a slow speed shredder with more than 22,000 hours. Both with their first engine."*

*(Heinz Bärleken, Workshop manager, Franz Josef Kipp GmbH & Co. KG)*

## HUGE VARIETY. BEST SEPARATION.

With our star screen inserts or mixing drums, you can expand your range of services significantly.

Coarse separation is implemented using a stone grid or vibrating screen. Windsifter attachments extract the 2D-lightfraction. With magnetic separation, you are able to reliably remove ferrous metals from your material stream.

The stone trap removes mineral components.



## MODIFICATION IN NO TIME AT ALL.

The more precisely your tool matches the material, the better the work result. Our large range of screen drums offers optimal mesh sizes and plate thickness for every application. If your operating conditions change, you can change the screen drum within 15 minutes.

All Doppstadt drum screens are designed without exceptions to be so flexible that you can modify them quickly and efficiently.



The video shows the advantages offered by the SM 620.2 while excelling at work at Franz Josef Kipp GmbH & Co. KG.



## 300,000 M. TONS PER YEAR.

Franz Josef Kipp GmbH & Co. KG has been relying on Doppstadt's sieving drum systems for more than 25 years – including the rugged SM 620.2.

The company processes 250,000 m. tons of green waste and 50,000 m. tons of waste wood into a CO<sub>2</sub>-neutral fuel every year. The team values Doppstadt machines above all because of their great flexibility and durability.

### EQUIPMENT OVERVIEW

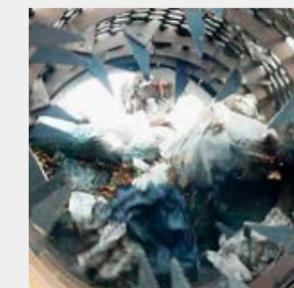
	SM 518.2	SM 620.3	SM 620.2 K	SM 620.2 SA	SM 720.2 SA
<b>HOPPER ATTACHMENTS</b>					
Vibrating screen	●	○	●	●	●
Hopper star screen	(*)	○	○	○	○
Stone grid	●	●	●	●	●
<b>MAGNETIC PULLEY</b>					
Magnetic pulley conveyors	●	●	●	●	●
<b>WINDSIFTER ATTACHMENTS</b>					
Rear belt windsifter	●	○	●	●	●
<b>SCREEN DRUM INSERTS</b>					
Star screen insert	(*)	○	(*)	(*)	○
Mixing drum	●	●	●	●	●
Wire screen drum	●	●	●	●	●
Square drum	●	●	●	●	●
Honeycomb drum	●	●	●	●	●
Round drum	●	●	●	●	●

● Available ○ Not available (\*) on request



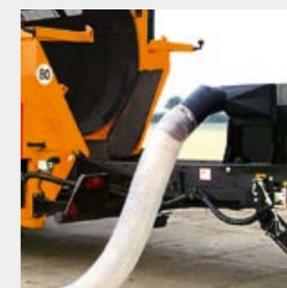
#### HOPPER ATTACHMENTS.

Stone grid and vibrating screen can be used to remove heavy impurities and loosen cohesive materials. A star screen over the feeding hopper removes the first coarse fraction, thus enabling a better screening of materials.



#### BAG OPENER. STONE TRAP. INCLUDES.

Additional options enable customised adaptation to special screening requirements.



#### WINDSIFTER ATTACHMENTS.

The 2D lightweight fraction is removed by means of a windsifter over the rear conveyor or star deck module. By doing so, you are able to achieve a high level of purity, for instance in compost.



#### MAGNETIC SEPARATION.

You can equip both discharge conveyors with magnetic pulleys to implement FE separation.

## YOUR RECYCLING PROCESSES WILL BE EVEN MORE PROFITABLE.

Regardless of whether you opt for an electric motor or a fuel-efficient diesel engine: You can rely on your robust Doppstadt machines every day in the field. With their large capacity, high throughput and great mobility, they will make your operations efficient and profitable. Good accessibility ensures quick maintenance and reduces downtimes to a minimum. If you are not able to solve a problem on your own, Doppstadt Service will be on site in no time at all.



### TROMMEL LINE

1

#### SM 518.2

Screening area 22.5 m<sup>2</sup>  
Hopper capacity 5 m<sup>3</sup>  
Weight 17,000 kg



2

#### SM 620.3

Screening area 30.2 m<sup>2</sup>  
Hopper capacity 5 m<sup>3</sup>  
Weight 19,000 kg



*"Our machines help our customers to master their daily challenges. The drum screen is one of the core products in our range. It is a "workhorse", capable of doing its job reliably and universally on site."*

*(Moritz Müller, Product manager, Doppstadt)*



2

#### SM 620.2 K

Screening area 30.2 m<sup>2</sup>  
Hopper capacity 7 m<sup>3</sup>  
Weight 24,000 kg



2

#### SM 620.2 SA

Screening area 30.2 m<sup>2</sup>  
Hopper capacity 7 m<sup>3</sup>  
Weight 24,000 kg



3

#### 720.2 SA

Screening area 38.8 m<sup>2</sup>  
Hopper capacity 7 m<sup>3</sup>  
Weight 24,000 kg



### PERFORMANCE PARAMETERS.

- 1 Smaller material streams  
up to 60,000 m. ton/yr
- 2 Average material streams  
up to 80,000 m. ton/yr
- 3 Large material streams  
up to 100,000 m. ton/yr

Orientation values for use in composting with 1-shift operation for 220 work days using 20-mesh size screen.

## THE NEW SM 620.3 A FACELIFT THAT PACKS A PUNCH.

The future starts now as we launch the SM 620.3, the new generation of our trommel screening machines. We have listened to the market and provide our customers with exactly the machine they need. The successor to the SM 620.2 offers the same performance with even greater efficiency at the most attractive price in its class.

## MOST IMPORTANT CHANGES AT A GLANCE.

- Three drive options (without AdBlue): Diesel, Electric or DualPower
- Modern load sensing hydraulic control
- Galvanised discharge belts
- New scrapers for all applications
- Belt variants in light and heavy-duty versions
- Remote control in Basic and Pro version



	<b>SM 518.2</b>		<b>SM 620.3</b>		<b>SM 620.2 K</b>	
Chassis	2-axle central axle trailer chassis for 80 km/h, as per StVZO (Road Traffic Licensing Regulations), with ABS brake system		2-axle central axle trailer chassis for 80 km/h, as per StVZO (Road Traffic Licensing Regulations), with ABS brake system		Tracked chassis with two travel speeds	
<b>DIMENSIONS</b>						
Overall weight	17,000 kg		19,000 kg		24,000 kg	
<b>WORKING POSITION</b>						
Length	14,655 mm		15,715 mm		15,350 mm	
Width	6,900 mm		6,970 mm		7,195 mm	
Height	3,450 mm		3,490 mm		3,630 mm	
<b>DIMENSIONS</b>						
Length	11,125 mm		11,810 mm		12,730 mm	
Width	2,540 mm		2,550 mm		2,990 mm	
Height	3,970 mm		4,000 mm		3,400 mm	
<b>DRIVE</b>						
Engine type	Diesel - hydraulic	Electro-hydraulic	Diesel - hydraulic	Electro-hydraulic	Diesel - hydraulic	
Make	DEUTZ TCD 2.9 L4	Three-phase motor	DEUTZ TCD 2.9 L4	Three-phase motor	DEUTZ TCD 3.6 L4	
Nominal output	55 kW (75 HP) at 2,200 rpm	30 kW or 55 kW	55 kW (75 HP) at 2,200 rpm	45 kW	85 kW (116 HP) at 1,800 rpm	
Max. torque	300 Nm at 1,600 rpm	193 Nm or 353 Nm at 1,485 rpm	300 Nm at 1,600 rpm	290 Nm at 1,485 rpm	480 Nm at 1,600 rpm	
Exhaust standard / Energy-efficiency class	Stage V / EUROMOT IIIA	IE4	Stage V / EUROMOT IIIA	IE4	Stage V / Tier 4f	
Tank capacity / Electrical connection	300 L	63 A or 125 A	260 L	125 A	400 l	
<b>SCREEN DRUM</b>						
	Two screening fractions Options: 3rd fraction using stone grid or vibrating screen, 4th fraction using rear conveyor wind-sifter, 5th fraction magnetic pulley		Two screening fractions, Options: 3rd fraction using stone grid, 4th fraction magnetic pulley		Two screening fractions, Options: 3rd fraction using stone grid or vibrating screen, 4th fraction using rear conveyor wind-sifter, 5th fraction magnetic pulley	
Length	4,700 mm		5,500 mm		5,500 mm	
Diameter	1,800 mm		2,000 mm		2,000 mm	
Mesh size	Selectable, 3 - 150 mm		Selectable, 3 - 150 mm		Selectable, 3 - 150 mm	
Mesh type	Selectable (square perforation, alternating squares, round perforation, comb)		Selectable (square perforation, diamond alternating squares, round perforation, comb)		Selectable (square perforation, diamond alternating squares, round perforation, comb)	
Material thickness	Selectable		Selectable		Selectable	
Drum rotational speed	0-21 rpm		0-21 rpm		0-21 rpm	
Screening area	22.5 m <sup>2</sup>		30.2 m <sup>2</sup>		30.2 m <sup>2</sup>	
<b>FEED HOPPER</b>						
Volume	5 m <sup>3</sup>		5 m <sup>3</sup>		7 m <sup>3</sup>	
W / H	3,780 mm / 2,795 mm		3,780 mm / 2,800 mm		4,865 mm / 2,895 mm	
<b>DISCHARGE BELTS</b>						
Length (*=optional)	Rear belt 5,500 mm (3,000 mm*)	Side belt 5,500 mm	Rear belt 5,500 mm (3,000 mm*)	Side belt 5,500 mm	Rear belt 5,500 mm (3,000 mm*)	Side belt 5,250 mm
Width	800 mm		1,000 mm		1,000 mm	
Discharge height	3,450 mm		3,450 mm		3,630 mm	
Conveyor speed	1.4 m/s		1.5 m/s		1.6 m/s	

	<b>SM 620.2 SA</b>		<b>SM 720.2 SA</b>	
Chassis	Semi-trailer		Semi-trailer	
<b>DIMENSIONS</b>				
Overall weight	24,000 kg		24,000 kg	
<b>WORKING POSITION</b>				
Length	15,370 mm		17,095 mm	
Width	6,945 mm		6,960 mm	
Height	3,470 mm		3,530 mm	
<b>DIMENSIONS</b>				
Length	11,680 mm		13,310 mm	
Width	2,550 mm		2,550 mm	
Height	3,980 mm		4,000 mm	
<b>DRIVE</b>				
Engine type	Diesel - hydraulic	Electro-hydraulic	Diesel - hydraulic	Electro-hydraulic
Make	DEUTZ TCD 3.6 L4	Three-phase motor	DEUTZ TCD 3.6 L4	Three-phase motor
Nominal output	85 kW (116 HP) at 1,800 rpm	55 kW or 75 kW	85 kW (116 HP) at 1,800 rpm	75 kW
Max. torque	480 Nm at 1,600 rpm	353 Nm or 481 Nm at 1,485 rpm	480 Nm at 1,600 rpm	481 Nm at 1,485 rpm
Exhaust standard / energy-efficiency class	Stage V / Tier 4f	IE4	Stage V / Tier 4f	IE4
Tank capacity / electrical connection	400 L	125 A or 150 A	400 L	150 A
<b>SCREEN DRUM</b>				
	Two screening fractions, Options: 3rd fraction using stone grid or vibrating screen, 4th fraction using rear conveyor wind-sifter, 5th fraction magnetic pulley		Two screening fractions, Options: 3rd fraction using stone grid or vibrating screen, 4th fraction using rear conveyor wind-sifter, 5th fraction magnetic pulley	
Length	5,500 mm		7,100 mm	
Diameter	2,000 mm		2,000 mm	
Mesh size	Selectable, 3 - 150 mm		Selectable, 3 - 150 mm	
Mesh type	Selectable (square perforation, diamond alternating squares, round perforation, comb)		Selectable (square perforation, diamond alternating squares, round perforation, comb)	
Material thickness	Selectable		Selectable	
Drum rotational speed	0-21 rpm		0-24 rpm	
Screening area	30.2 m <sup>2</sup>		38.8 m <sup>2</sup>	
<b>FEED HOPPER</b>				
Volume	7 m <sup>3</sup>		7 m <sup>3</sup>	
W / H	4,780 mm / 2,910 mm		4,780 mm / 2,910 mm	
<b>DISCHARGE BELTS</b>				
Length (*=optional)	Rear belt 5,500 mm (3,000 mm*)	Side belt 5,500	Rear belt 5,500 mm (3,000 mm*)	Side belt 5,500 mm
Width	1,000 mm		1,000 mm	
Discharge height	3,470 mm		3,480 mm	
Conveyor speed	1.6 m/s		3.1 m/s	

## **BEST SOLUTION. SMART RECYCLING.**

Our innovative solutions have made us a leading supplier and manufacturer of processing technology. Customers in the waste disposal and recycling industry all over the world trust our expertise and benefit from our qualified service every day.

We are always there for you. At the Doppstadt Academy, we develop your team online and offline so that you can fully exploit the performance potential of the machines and make operations even more productive. Added to this are worldwide security of supply, fast on-site repair service and all-round carefree packages within service and maintenance contracts.

Because “every machine is only as good as the service behind it.” (Werner Doppstadt)

