



SANDVIK SG & SG-H GRIZZLY SCREENS

TECHNICAL SPECIFICATION

The SG Grizzly Screens are robust linear-motion screens designed for heavy-duty scalping. The main purpose of scalper screen is to remove fines from the feed before primary crushing. SG screens are suitable for mining and construction applications. Grizzly screen immediately after a primary feeder gives more effective scalping than a primary feeder with a built-in grizzly. The stroke and speed remain constant while the feed rate is adjusted by varying the feeder speed, providing always an efficient separation. SG screens are often combined with a reciprocating plate feeder when heavy dump loads and high capacity is required, in conjunction with a by-pass of the fines ahead of the crusher.

SG screens (excluding SG2452X) have their vibrating mechanism mounted under the feeder body as standard. The double shaft mechanism generates a linear stroke, which consequently means a better feeding as well as a sustained material speed on the screen. The SG screens are available with 2, 3 and 4 grizzly steps for the single deck models, depending on the size of the screen. The double deck models are equipped with grizzlies on the top deck and STM screening deck as a bottom deck (not for fines and classification screening).

The drive unit incorporates two motors with cardan shafts (self-synchronizing mechanism, no gear wheels). The double shaft mechanism makes the installation slope of 5 degrees enough in most cases. Hence, the SG screens require considerably low headroom, which implies a significant advantage in some applications.



Alongside with SG product family, Sandvik is offering circular motion scalper screens, SG-H series, in case of complete plant deliveries. The SG-H screens are designed for installation after a primary feeder and before a primary crusher in construction duty applications. The feed will typically be blasted rock, ripped rock or gravel with a high fines content, often containing some difficult wet natural fines or clay. The SG-H range of screens has a single grizzly or plate type scalping deck with the option of a second deck with woven wire.

FEATURES

Double shaft mechanism generates a linear stroke that gives better performance

Versatile adjustment possibilities enable best achievable scalping performance

Large separation range available with one or two deck construction

High acceleration keeps the grizzly section clean

Low headroom requirement gives an advantage for lay-out designing



SG GRIZZLY SCREENS

STANDARD DELIVERY INCLUDES

- Screen body and vibrating mechanism bolted together
- Drive unit including electric motors, motor bases and power transmission components
- Support coil springs
- Spring seats (i.e. top and bottom parts)
- Grizzly bars
- AR400 steel wear liners for pan and sides
- SG2452X -model: 50 mm replaceable wear rubber on feed tray and 6 mm rubber protection (glued) on cross beams on the second deck
- Buffers to restrict excess lateral movement
- Screen media side clamps and center clamps when side tensioned media is applicable (all clamps are made of steel) and steel wire media
- Surface treatment according to Sandvik standard
- Installation, operating and maintenance manuals

OPTIONS

- Screening media for bottom deck: side tensioned rubber
- Upgraded mechanism
- AR500 steel liners for pan and sides
- Tool kit for mechanism bearing change
- Special grizzly bars for slag handling
- Special surface treatment for corrosive atmosphere (special paint)
- Special components (motors etc.) for special circumstances (temperature, altitude, tropical etc.)
- Preparation (in the factory before dispatch) for a long period storage

NOMINAL OPERATION LIMITS

- Maximum drop height: 750 mm
- Inclination range: 5–12 degrees (std. 5 deg.)
- Separation range: 60–250 mm
- Speed range: 700–980 rpm
- Stroke range: 5–16 mm
- Acceleration: up to 5 x G

GENERAL TECHNICAL DATA

- Stroke angle: 40-55 degrees
- Standard inclination: 5 degrees (for SG2452X 12 deg.)
- Motors according to IEC standard, enclosure class IP55, frame B3, speed 750/1000/1500 rpm (depends on the size of the screen)
- Drive through cardan shaft, one motor for each shaft, no gears
- Spherical roller bearings
- Oil bath lubrication
- Buffers to restrict excess lateral movement included
- Dual shaft mechanism is fixed with pre-tensioned bolts
- Mechanism is equipped with oil level gauge and breather
- Wear liners: AR400 steel
- Welded frame including heavy steel profiles
- Stroke length is adjustable by adding extra weights
- When grizzly separation is over 130 mm, the grizzly bars and side plate will be higher than std.

1 DECK	SG1231	SG1531	SG1831	SG1541	SG1841
Max Feed Size (mm/one dim.) *	900	1,200	1,500	1,200	1,500
Inside Width (mm)	1,220	1,520	1,820	1,520	1,820
Inside Length (mm)	3,000	3,000	3,000	3,900	3,900
Grizzly Steps, amount x length (mm)	2 x 900	2 x 900	2 x 900	3 x 900	3 x 900
Screening Area (m²)	2.2	2.7	3.3	4.0	4.9
Wear liner thickness, pan/sides (mm)	16/8	16/8	16/8	16/8	16/8
Weight with Grizzlies (kg) **	4,200	5,000	6,400	6,500	7,850
Installed Power (kW)	2 x 7.5	2 x 7.5	2 x 11	2 x 11	2 x 11
Mechanism Type / Size	Dual 16	Dual 16	Dual 20	Dual 20	Dual 20

	SG2141	SG1851	SG2151	SG2451	SG2751***
Max Feed Size (mm/one dim.) *	1,500	1,500	1,500	1,500	1,500
Inside Width (mm)	2,120	1,820	2,120	2,420	2,720
Inside Length (mm)	3,900	4,800	4,800	4,800	5,100
Grizzly Steps, amount x length (mm)	3 x 900	4 x 900	4 x 900	4 x 900	4 x 900
Screening Area (m²)	5.7	6.4	7.5	8.6	10
Wear liner thickness, pan/sides (mm)	16/8	16/8	16/8	20/10	20/10
Weight with Grizzlies (kg) **	9 260	10 500	11 640	15 500	18 700
Installed Power (kW)	2 x 18.5	2 x 22	2 x 22	2 x 30	2 x 30
Mechanism Type / Size	Dual 24	Dual 24	Dual 24	Dual 30	Dual 34

* These values correspond to material with bulk density 1,6 t/m³ and are recommended values only (i.e. other figures might occur in special applications/screen sizes).

** The weight includes the weight of the grizzlies (grizzly gap appr. 100 mm). Total weight of the equipment varies when the grizzly gap changes. Please contact the Product Line S&F for further details regarding these weights.

*** Maximum bulk density: 1,8 t/m³

DIMENSIONS - SG GRIZZLY SCREEN, TWO STEPS, SINGLE DECK

2 DECK

	SG1242	SG1542	SG1842	SG2452X***
Max Feed Size (mm/one dim.) *	900	1,200	1,500	500
Inside Width (mm)	1,220	1,520	1,820	2,420
Inside Length (mm)	3,900	3,900	3,900	5,160
Grizzly Steps, amount x length (mm)	3 x 900	3 x 900	3 x 900	4 x 1200
Screening Area (m²)	3.24 / 3.12	4.05 / 3.90	4.86 / 4.86	11.5 / 12
Wear liner thickness, pan/sides (mm)	16/8	16/8	16/8	20/10
Weight with Grizzlies (kg) **	7,000	7,900	10,450	20,500
Installed Power (kW)	2 x 15	2 x 15	2 x 18.5	2 x 37
Mechanism Type / Size	Dual 20	Dual 20	Dual 24	Dual 38

* These values correspond to material with bulk density 1,6 t/m3 and are recommended values only (i.e. other figures might occur in special applications/screen sizes).

** The weight includes the weight of the grizzlies (grizzly gap appr. 100 mm) and wire media on the bottom deck. Total weight of the equipment varies when the grizzly gap changes. Please contact the Product Line S&F for further details regarding these weights.

*** Special design with mechanism on top

GENERAL PACKING PROCEDURE - SG GRIZZLY SCREENS

MODEL	APPROXIMATE NET SHIPPING DIMENSIONS				
	NET WEIGHT (KG)	LENGTH (MM)	WIDTH (MM)	HEIGHT (MM)	VOLUME (M³)
SG1231	4,300	3,250	1,760	1,300	7.4
SG1531	5,100	3,250	2,060	1,380	9.6
SG1831	6,500	3,250	2,360	1,440	11.0
SG1541	6,700	4,200	2,060	1,660	14.4
SG1841	8,000	4,200	2,360	1,690	16.7
SG2141	9,500	4,200	2,660	2,050	14.5
SG1851	10,700	5,000	2,360	2,050	24.2
SG2151	11,850	5,000	2,660	2,050	27.3
SG2451	15,500	5,000	2,960	2,160	32.0
SG2751	17,000*	5,350	3,450	2,500	46.1
SG1242	7,100	4,200	1,760	2,300	17.0
SG1542	8,000	4,200	2,060	2,300	19.9
SG1842	10,600	4,200	2,360	2,300	22.8
SG2452X	19,000*	6,050	3,185	2,660	51.2

* Without drive unit, see table below for the drive unit.

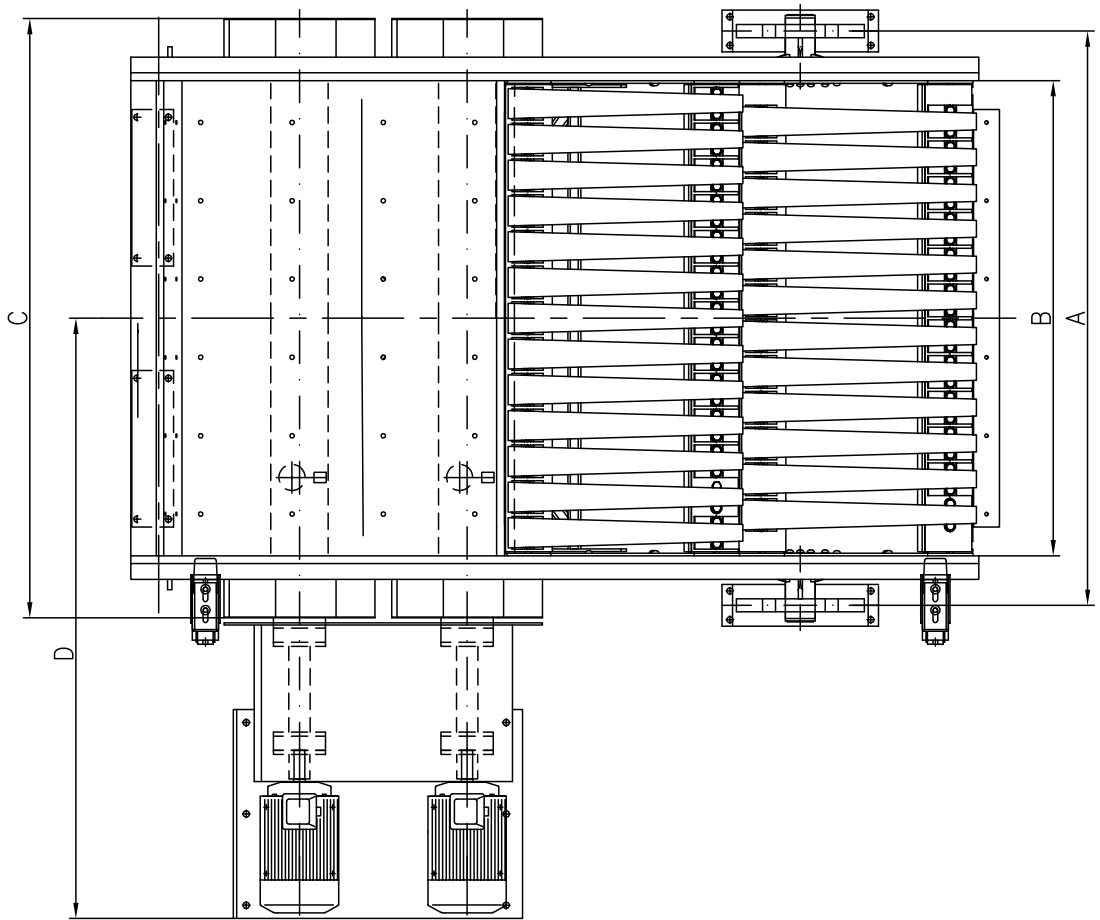
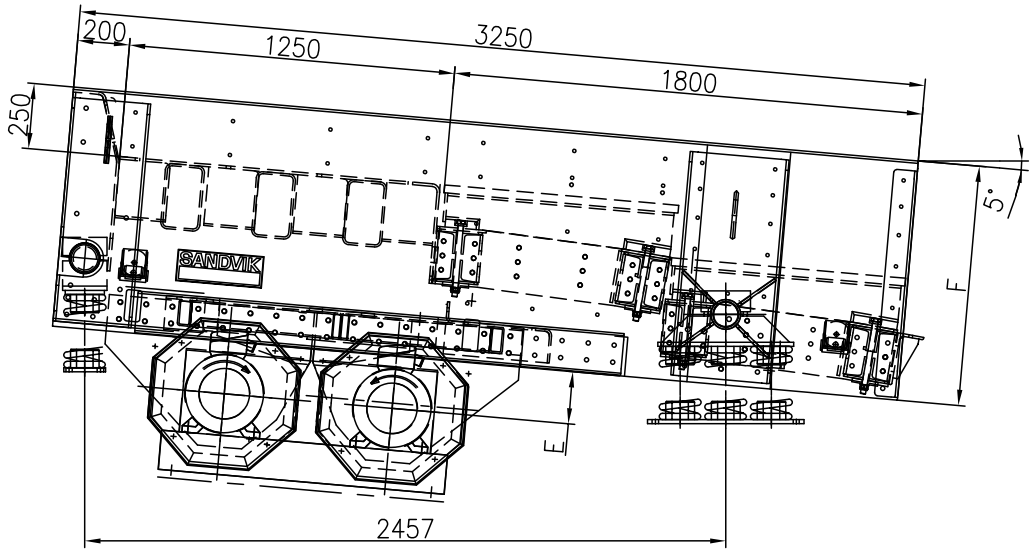
This information is meant to give a general guideline for our standard sizes. Some variations may exist due to options.

Screen is shipped on its own transport supports, vibrating mechanism is bolted to the screen frame.

In all deliveries: motors, motor bases, cardan shaft parts, covers, support springs, lower spring pedestals and extra counter weights are packed in a separate box, which is tied on top of the screen deck when possible.

When export packing is required (wooden crate etc.).

APPROXIMATE NET SHIPPING DIMENSIONS FOR SG2751 AND SG2452X DRIVES					
DRIVE SIZE	NET WEIGHT (KG)	LENGTH (MM)	WIDTH (MM)	HEIGHT (MM)	VOLUME (M³)
34 (SG2751)	1,750	2,900	1,750	1,000	6.1
38 (SG2452X)	2,000	2,900	1,750	1,000	6.1

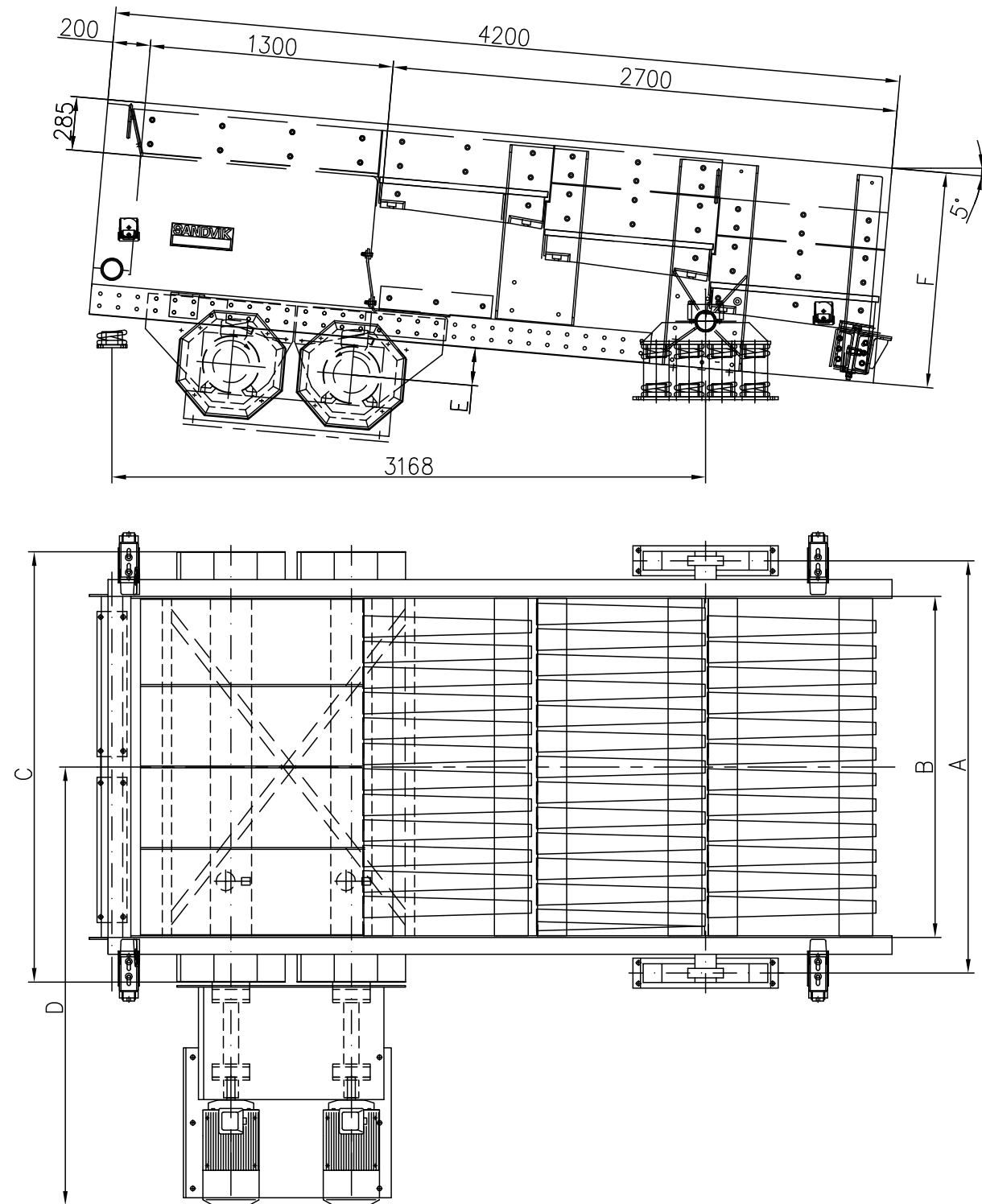


MODEL	DEECK AREA (M²)	WEIGHT (KG)	A	B	C	D	E*	F**
SG1231	2.2	4,200	1,600	1,220	1,680	2,040	160	900
SG1531	2.7	5,000	1,900	1,520	1,980	2,120	160	900
SG1831	3.3	6,400	2,200	1,820	2,350	2,300	200	900

* Please check from the latest GA drawing

** Screen height depending on grizzly gap, please check from the latest GA drawing.

DIMENSIONS - SG GRIZZLY SCREEN, THREE STEPS, SINGLE DECK

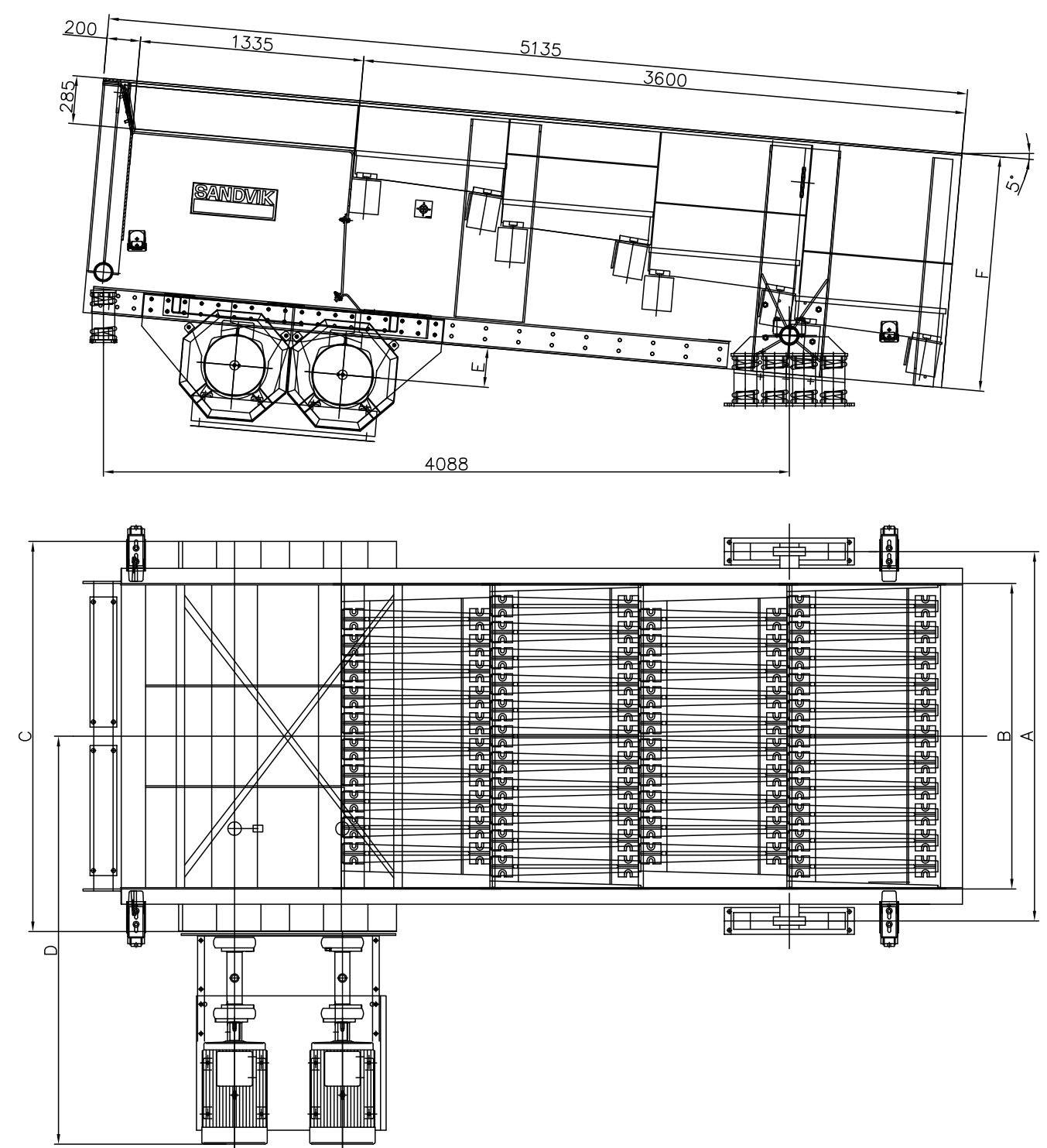


MODEL	DEECK AREA (M²)	WEIGHT (KG)	A	B	C	D	E*	F**
SG1541	4.0	6,500	1,900	1,520	2,050	2,150	200	1,150
SG1841	4.9	7,850	2,200	1,820	2,350	2,250	200	1,150
SG2141	5.7	9,260	2,500	2,120	2,650	2,580	235	1,150

* Please check from the latest GA drawing

** Screen height depending on grizzly gap, please check from the latest GA drawing.

DIMENSIONS - SG GRIZZLY SCREEN, FOUR STEPS, SINGLE DECK

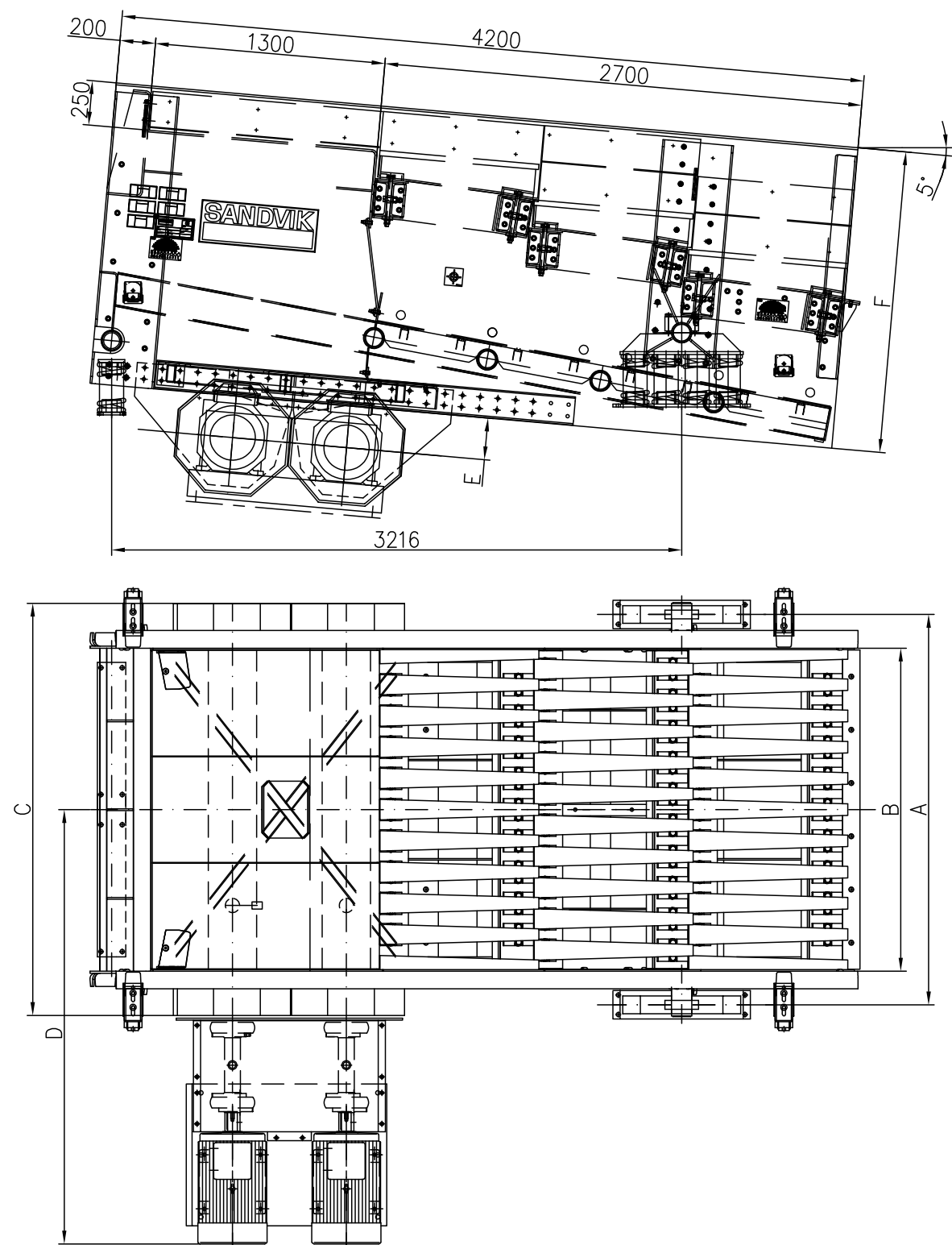


MODEL	DEECK AREA (M²)	WEIGHT (KG)	A	B	C	D	E*	F**
SG1851	6.4	10,500	2,200	1,820	2,450	2,430	235	1,400
SG2151	7.5	11,640	2,500	2,120	2,750	2,520	235	1,400
SG2451	8.6	13,200	2,800	2,420	3,050	2,770	300	1,400
SG2751	n/a	18,700	3,100	2,720	3,420	2,950	TBC	1,600

* Please check from the latest GA drawing

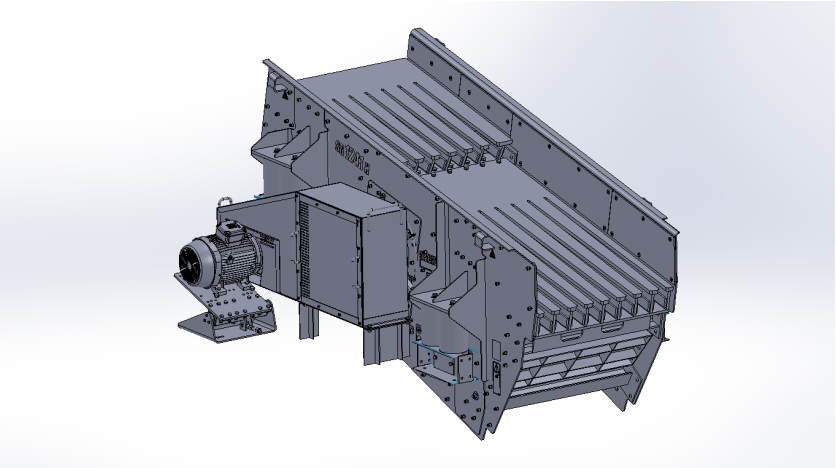
** Screen height depending on grizzly gap, please check from the latest GA drawing.

DIMENSIONS - SG GRIZZLY SCREEN, THREE STEPS, DOUBLE DECK



MODEL	DEECK AREA		WEIGHT (KG)	A	B	C	D	E*	F**
	Top	Bottom							
SG1242	3.24	3.12	7,000	1,600	1,220	1,750	2,000	200	1,700
SG1542	4.05	3.90	7,900	1,900	1,520	2,050	2,190	200	1,700
SG1842	4.86	4.86	10,450	2,200	1,820	2,400	2,430	235	1,700
SG2452X ***	11.5	12.0	20,500	2,800	2,420	3,185	2,850	n/a	1,800

* Please check from the latest GA drawing
** Screen height depending on grizzly gap, please check from the latest GA drawing.
*** Special design.



SG-H GRIZZLY SCREENS

FRAME INCLUDES INCLUDES

- Bolted screen body
- Side plates with top and bottom flanges
- Top deck is fitted with two integral grizzly sections, featuring diverging gap between the bars
- The grizzly is made of AR steel, one piece for each grizzly section and bolts to the crossbeams
- Bottom deck designed for side-tensioned media. C-type clamps are used for bottom deck
- Bolted AR liners to protect the sidewalls at the top and bottom decks
- Discharge plate at the bottom deck (i.e. equipped with 10 mm thick AR steel plate)
- Surface treatment according to Sandvik standard, components according to supplier's std painting.
- Installation, operating and maintenance manuals

CIRCULAR MOTION MECHANISM INCLUDES

- Eccentric shaft with spherical roller bearings
- Unbalanced flywheels with external counterweights (i.e. facilitates stroke adjustments)
- The mechanism tube is protected by rubber liner

DRIVE TRANSMISSION INCLUDES

- Motor pulley, V-belts, sheave and pivoting motor base
- Transmission guard
- Flywheel guard (i.e. the flywheel is positioned at the opposite side of the transmission)

SUSPENSION INCLUDES

- Support brackets
- Coil springs
- Base mountings equipped with friction brakes

OPTIONS

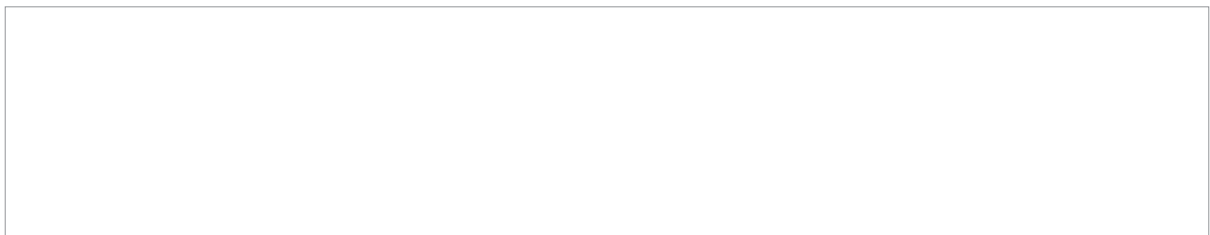
- Perforated steel plates or self-supporting rubber panels (i.e. bottom deck)
- Preparation (in the factory before dispatch) for a long period storage

MODEL	SG1241H	SG1242H	SG1541H	SG1542H
Number of Decks	1	2	1	2
Width (mm)	1,200	1,200	1,500	1,500
Length (mm)	3,600	3,600	4,000	4,000
Screening Area (m ²)	4.3	4.3	6.0	6.0
Stroke	7-11	7-11	7-11	7-11
Vibrating Unit Size	26 B1	26 B1	32 B	32 B
Rated Speed (rpm)	652-725	652-725	652-725	652-725
Motor Power (kW)	18.5	18.5	22.0	22.0
Weight (kg)	4,330	4,600	8,850	9,400

These values correspond to material with bulk density 1,6 t/m3 and are recommended values only (i.e. other figures might occur in special applications/screen sizes).

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