

# SANDVIK SR ROLLER GRIZZLY, ROLLER SCREEN, ROLLER SCREEN CRUSHER

TECHNICAL SPECIFICATION



SR Roller Screens are compact, non-vibrating roller grizzlies, roller screens and roller screen crushers ideal for use with non-abrasive materials like coal and limestone, even when materials are wet and sticky.

### **ROLLER GRIZZLY**

The Roller Grizzly is designed for scalping and screening duties of low abrasive materials (e.g. limestone and coal). Harder and abrasive materials are not suitable for the Roller Grizzly (i.e. abrasion index (Ai) higher than 0,03).

This screen model is considerably compact compared to the conventional screens and its ability to handle high capacities and moisture material has been proven in many applications. The Roller Grizzly is available for both primary and secondary duties, depending on the maximum feed size.

### **ROLLER SCREEN**

The Roller Screens are primarily designed for coal and lignite screening as well as similar soft, non-abrasive materials like limestone. These screens are superior to the vibrating equipment when the material is sticky and exhibits high moisture content. No vibration is transferred to the support structure and its compact size in conjunction with the high capacity range makes these screens highly competitive.

- Roller Screen for ROM (run of mine): coal screening
- Roller Screen for Secondary applications: to screen washed coal.
- Roller Screen for Fine screening: Screening in one dimension only





### **ROLLER SCREEN CRUSHER**

This equipment is specially designed for coalfired power plants, in order to remove impurities of commercial coal as well as to crush down existing coal lumps to acceptable sizes.

The Roller Screen Crusher includes: dust encapsulation, pre-screen, two crusher drums and after-screen. A pre-crusher might be necessary to put on top of the pre-screen if many lumps are present (e.g. frozen coal).

The crusher drums have a releasing mechanism to enable wood pieces, stones and other impurities to be rejected. The sensitivity of the release mechanism is adjustable.

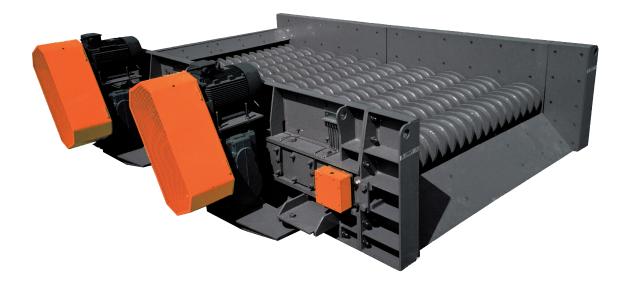
### **FEATURES**

No vibration, thus lighter supporting structure requirements.

Screens wet and sticky materials without blinding, giving increased screening efficiency with difficult materials.

Easy to encapsulate (to minimize dust and noise emissions).

Reliable efficiency and efficient screening action mean that minimized screening area and optimized screen size can be used.



## SR ROLLER GRIZZLY

### STANDARD DELIVERY INCLUDES

- Frame, rollers, power transmission parts, drive unit(s) with motor(s)
- First two rollers are equipped with scrapers
- Rotation detector
- Surface treatment according to Sandvik S&F standard, components according to supplier's standard painting. Inside surface as well as the rollers have primer coat only.
- Installation, operating and maintenance manuals

### **OPTIONS**

- Scrapers under all rollers
- Dust cover
- Automatic grease lubrication for the bearings
- Automatic oil lubrication for chains
- Special surface treatment for corrosive atmosphere (special paint)
- Special components (motors etc.) for special circumstances (temperature, altitude,

	SR1221	SR1521	SR1821	
Nominal Width (mm)	1,200	1,500	1,800	
Nominal Length (mm)	2,000	2,000	2,000	
Standard Separation (mm)	110	110	110	
Installed Power/Drive (kW)	22	22	30	
Number of Drives (pcs)	1	1	1	
Weight of the Machine (kg)	7,200	7,900	8,600	

	SR2131	SR2431	SR1541	
Nominal Width (mm)	2,100	2,400	1,500	
Nominal Length (mm)	3,000	3,000	4,000	
Standard Separation (mm)	110	110	110	
Installed Power/Drive (kW)	22	22	22	
Number of Drives (pcs)	2	2	2	
Weight of the Machine (kg)	15,100	15,500	14,500	

	SR1841	SR2141	SR2441
Nominal Width (mm)	1,800	2,100	2,400
Nominal Length (mm)	4,000	4,000	4,000
Standard Separation (mm)	110	110	110
Installed Power/Drive (kW)	22	22	22
Number of Drives (pcs)	2	2	2
Weight of the Machine (kg)	15,500	16,500	18,500
	SR1861	SR2161	SR2461
Nominal Width (mm)	1,800	2,100	2,400
Nominal Length (mm)	6,000	6,000	6,000
Standard Separation (mm)	110	110	110
Installed Power/Drive (kW)	30	30	30
Number of Drives (pcs)	3	3	3
Weight of the Machine (kg)	24,500	26,500	28,500

Note! Table above is for standard primary screen sizes. Also other sizes available by request as well as screens for secondary duty.

### GENERAL TECHNICAL DATA

• Roller Grizzly is available for primary (1) and for secondary (2) duty

Sample designation: SR1541 SR1542

- Maximum feed size: 1,500 mm (primary) and 400 mm (secondary)
- Separation range: 50-180 mm
- Recommended inclination: 5-15 degrees (std. 9 deg.)
- Rotation detector is included
- Scrapers under first two rollers are included
- Drop height of the material should be as low as possible (especially when large lumps)
- Spread of the material at the feed end should be the entire width
- Material to handle are limestone and coal
- Nominal roller rotation: 25-40 rpm
- Motors according to IEC standard, enclosure class IP55
- Motor nominal speed of rotation: 1,500 rpm
- Drive unit, nominal power alternatives: 22 and 30 kW
- Number of drive units: 1-3 pcs
- Primary transmission type (drive): gearbox+v-belt
- Secondary transmission type (rollers): roller chain 24B-2
- Thickness of the liners: 8-10 mm
- Hardness of the liners: HB 370-430
- Hardness of the roller discs: HB 370-430
- Height of the machine: 1 m
- Must be fed by a separate feeding equipment
- Weights, nominal power and prices depends on the feed charasteristics as well as the required separation
- More screen sizes available by request, please contact  ${\sf SANDVIK}$



### SR ROLLER SCREEN

### STANDARD DELIVERY INCLUDES

- Frame, rollers, power transmission parts, drive unit(s) with motor(s)
- Rotation detector
- Surface treatment according to Sandvik S&F standard, components according to supplier's standard painting. Inside surface as well as the rollers have primer coat only
- Installation, operating and maintenance manuals

### **OPTIONS**

- Scrapers under all rollers (except for the Fine Screening models which cannot be equipped with scrapers)
- Dust cover
- Automatic Grease lubrication for the bearings
- Automatic Oil lubrication for chains
- Toothed belt drive for secondary transmission instead of roller chains
- Special surface treatment for corrosive atmosphere (special paint)
- Special components (motors etc.) for special circumstances (temperature, altitude, tropical etc.)

Note! Applies on both disc and elliptic roller screens.

### DISC ROLLER SCREENS

	SR1234	SR1534	SR2144	SR2454	SR2464	SR2474
Nominal Width (mm)	1,200	1,500	2,100	2,400	2,400	2,400
Nominal Length (mm)	2,500	2,500	4,000	5,000	6,000	7,000
Standard Separation (mm)	50	50	50	50	50	50
Installed Power/Drive (kW)	7.5	7.5	7.5	7.5 or 11	7.5 or 11	7.5 or 11
Number of Drives (pcs)	2	2	4	5	6	6
Weight of the Machine (kg)	5,200	5,900	11,900	16,700	19,500	23,200

Thickness of liners (mm)	10-16
Rollers	hi-chrome wear resistant castings; discs & spacers are replaceable
Hardness of roller discs	HB 500-550

Acceptable process material(s) ROM coal

	SR1035	SR1535	SR2045	SR2065	
Nominal Width (mm)	1,000	1,500	2,000	2,000	
Nominal Length (mm)	2,500	3,000	4,000	6,000	
Standard Separation (mm)	30	30	50	50	
Installed Power/Drive (kW)	7.5	7.5	7.5	7.5	
Number of Drives (pcs)	1	2	3	4	
Weight of the Machine (kg)	4,000	4,200	7,500	11,200	

Thickness of liners (mm)	8-10 mm	
Rollers	Steel tube rollers, spirals & discs	
Hardness of roller discs	HB 370-430	
Acceptable process material(s)	Commercial/ washed coal	

### GENERAL TECHNICAL DATA

• Maximum feed size: 300 mm • Separation range: 20-80 mm

• Inclination: 0 degrees

• Motors according to IEC standard, enclosure class IP55

• Nominal motor speed: 1500 rpm

• Nominal roller rotation: 100-150 rpm

• Primary transmission type (drive): gearbox+v-belt

• Secondary transmission type (rollers): Roller chain 16B-2 or toothed belt

• Rotation detector is included

• Spread of the material at the feed end should be the entire width

• Material speed on the screen should be the same as the conveying speed

• Recommended material speed to the screen 0,1-0,5 m/s

• Hardness of liners: HB 370-430

• More screen sizes available by request, please contact SANDVIK

Note! Screening in two dimensions (i.e. discs are always included).



### **ELLIPTIC ROLLER SCREENS**

	SR1237	SR1537	SR2147	SR2167	SR2477
Nominal Width (mm)	1,200	1,500	2,100	2,100	2,400
Nominal Length (mm)	2,500	3,000	4,000	6,000	6,500
Installed Power/Drive (kW)	5.5	5.5	5.5	5.5	5.5
Number of Drives (pcs)	2	3	4	6	10
Weight of the Machine (kg) **	3,500	5,000	8,000	13,400	16,000

### GENERAL TECHNICAL DATA

- Material to handle is ROM, commercial coal \*\*
- Roller shape: elliptical \*\*\*
- Separation range: 5-20 mm
- Maximum feed size: 300 mm
- · Inclination: 0 degrees
- Spread of the material at the feed end should be the entire width
- Material speed on the screen should be the same as the conveying speed
- Special Roller coating (i.e. hi-chrome wear resistant castings, replaceable components)
- Nominal roller rotation: 230-350 rpm
- Nominal motor speed: 1,500 rpm
- Motors according to IEC standard, enclosure class IP55
- Rotation detector is included
- Primary transmission type (drive): motor + gearbox
- Secondary transmission type (rollers): timing belt
- Thickness of liners: 10 mm
- Hardness of liners: HB 370-430
- More screen sizes available by request, please contact SANDVIK

- \* Weights correspond to separation 8 mm
- \*\* For commercial coal and for Non-abrasive materials a lighter model of fine roller screen is available by request. For more information please contact SANDVIK.

  \*\*\* Screening in one dimension (i.e. discs are always excluded, casted coating of rollers for ROM coal screening)



## SR ROLLER SCREEN CRUSHER

### STANDARD DELIVERY INCLUDES

- Frame, rollers, power transmission parts, drive units with motors
- Rotation detector
- Surface treatment according to Sandvik S&F standard, components according to supplier's standard painting. Inside surface as well as the rollers have primer coat only
- Installation, operating and maintenance manuals

### **OPTIONS**

- Automatic Grease lubrication for the bearings
- Automatic Oil lubrication for chains
- Toothed belt drive for secondary transmission instead of roller chains
- Special surface treatment for corrosive atmosphere (special paint)
- Special components (motors etc.) for special circumstances (temperature, altitude, tropical etc.)

SR1039		SR1539		SR1549	
	SR1039		SR1539		SR1549
1,000	1,000	1,500	1,500	1,500	1,500
4,500	4,500	5,000	5,000	6,000	6,000
50	50	50	50	50	50
2 x 7.5	2 x 7.5	2 x 7.5	2 x 7.5	2 x 7.5	2 x 7.5
7.5	7.5	7.5	7.5	7.5	7.5
15.0	15.0	30.0	30.0	30.0	30.0
	15.0		15.0		15,0
37.5	52.5	52.5	67.5	52.5	67.5
4	5	4	5	4	5
8,000	9,100	9,800	11,500	10,950	12,400
	1,000 4,500 50 2 x 7.5 7.5 15.0	SR1039       1,000     1,000       4,500     4,500       50     50       2 x 7.5     7.5       15.0     15.0       37.5     52.5       4     5	SR1039       1,000     1,000     1,500       4,500     4,500     5,000       50     50     50       2 x 7.5     2 x 7.5     2 x 7.5       7.5     7.5     7.5       15.0     15.0     30.0       37.5     52.5     52.5       4     5     4	SR1039         SR1539           1,000         1,000         1,500         1,500           4,500         5,000         5,000         5,000           50         50         50         50           2 x 7.5         2 x 7.5         2 x 7.5         2 x 7.5           7.5         7.5         7.5         7.5           15.0         15.0         30.0         30.0           37.5         52.5         52.5         67.5           4         5         4         5	SR1039         SR1539           1,000         1,000         1,500         1,500         1,500           4,500         4,500         5,000         5,000         6,000           50         50         50         50         50           2 x 7.5         2 x 7.5         2 x 7.5         2 x 7.5           7.5         7.5         7.5         7.5           15.0         15.0         30.0         30.0         30.0           37.5         52.5         52.5         67.5         52.5           4         5         4         5         4

Excl. Pre-Crusher	SR2049		SR2069	
Incl. Pre-Crusher		SR2049		SR2069
Nominal Width (mm)	2,000	2,000	2,000	2,000
Nominal Length, total (mm)	6,000	6,000	8,000	8,000
Standard Separation (mm)	50	50	50	50
Installed Power / pre-screen (kW)	2 x 7.5	2 x 7.5	4 x 7.5	4 x 7.5
Installed Power / after screen (kW)	7.5	7.5	7.5	7.5
Installed Power / main crusher (kW)	37.0	37.0	37.0	37.0
Installed Power / pre-crusher (kW)		22,0		22.0
Installed Total Power (kW)	59.5	81.5	74.5	96.5
Number of Drives (pcs)	4	5	6	7
Weight of the Machine (kg)	11,700	13,500	14,900	16,700

### GENERAL TECHNICAL DATA

- Material to handle is commercial coal
- Maximum feed size: 300 mm
- Separation range: 20-80 mm
- Additional separations and sizes are available.
- Inclination: 0 degrees
- Rotation detector is included
- Spread of the material at the feed end should be the entire width
- Material speed on the screen should be the same as the conveying speed
- Encapsulated unit
- Nominal roller rotation: 100-150 rpm
- Motors according to IEC standard, enclosure class IP55
- Nominal motor speed: 1,500 rpm
- Primary transmission type (drive): gearbox+v-belt
- Secondary transmission type (rollers): roller chain 16B-2 or toothed belt
- Thickness of liners: 8 mm
- Hardness of liners: HB 370-430
- Type of roller coating: spiral, discs \*
- Hardness of roller discs: HB 370-430
- Scrapers under the first rollers (appr. 1/3 of the total roller amount)
- Height of the machine: 2.4 m (i.e. +300 mm for the precrusher)
- More screen sizes available by request, please contact SANDVIK

Note! Screening in one or two dimensions (with or without discs), depending on the screening requirements. Note! Special options for ATEX requirements available by request.

## GENERAL PACKING PROCEDURE

### **SR ROLLER GRIZZLY**

### APPROXIMATE NET SHIPPING DIMENSIONS

GRIZZLY TYPE	NET WEIGHT (KG)	LENGTH (MM)	WIDTH (MM)	HEIGHT (MM)	VOLUME (M3)
SR1221	7 200	2500	3200	1200	9.6
SR1521	7 900	2500	3500	1200	10.5
SR1821	8 600	2500	3800	1200	11.4
SR2121	9 300	2500	4100	1200	12.3
SR2421	10 000	2500	4400	1200	13.2
SR1541	14 500	4400	3500	1200	18.5
SR1841	15 500	4400	3800	1200	20.1
SR2141	16 500	4400	4100	1200	21.6
SR2441	18 500	4400	4400	1200	23.2
SR1861	24 500	6300	3800	1200	28.7
SR2161	26 500	6300	4100	1200	31.0
SR2461	28 500	6300	4400	1200	33.3
SR1222	5 700	2500	2800	1200	8.4
SR1522	6 250	2500	3200	1200	9.6
SR1822	6 800	2500	3600	1200	10.8
SR2122	7 350	2500	4000	1200	12.0
SR2422	7 900	2500	4400	1200	13.2
SR1542	11 500	4500	3200	1200	17.3
SR1842	12 400	4500	3600	1200	19.4
SR2142	13 300	4500	4000	1200	21.6
SR2442	14 200	4500	4400	1200	23.8
SR1862	20 500	6300	3600	1200	27.2
SR2162	21 500	6300	4000	1200	30.2
SR2462	22 500	6300	4400	1200	33.3

This information is meant to give a general guideline for our standard sizes. Some variations may exist due to options. When export packing is required (wooden crate etc.).

### SR ROLLER SCREEN

### APPROXIMATE NET SHIPPING DIMENSIONS

GRIZZLY TYPE	NET WEIGHT (KG)	LENGTH (MM)	WIDTH (MM)	HEIGHT (MM)	VOLUME (M3)
SR1035	4 000	2700	2100	1200	6.8
SR1535	4 200	3200	2400	1200	9.2
SR2045	7 500	4200	3100	1200	15.6
SR2065	11 200	6200	3100	1200	23.1
SR1234	5 200	2700	2600	1200	8.4
SR1534	5 600	2700	2900	1200	9.4
SR2144	8 000	4200	3700	1200	18.6
SR2454	10 000	5200	4000	1200	25.0
SR2464	13 000	6200	4000	1200	29.8
SR2474	16 000	7200	4000	1200	34.6
SR1237	3 500	2700	2600	1200	8.4
SR1537	5 000	3200	2900	1200	11.1
SR2147	8 000	4200	3400	1200	17.1
SR2167	13 400	6200	3400	1200	25.3
SR2477	16 000	6700	3900	1200	31.4

This information is meant to give a general guideline for our standard sizes. Some variations may exist due to options. When export packing is required (wooden crate etc.).

### SR ROLLER SCREEN CRUSHER

### APPROXIMATE NET SHIPPING DIMENSIONS

GRIZZLY TYPE	NET WEIGHT (KG)	LENGTH (MM)	WIDTH (MM)	HEIGHT (MM)	VOLUME (M3)
SR1039	8 500	4700	2100	2900	28.6
SR1539	13 300	5200	2600	2900	39.2
SR1549	15 450	6200	2600	2900	46.7
SR2049	17 700	6200	3100	2900	55.7
SR2069	23 900	8200	3100	2900	73.7

This information is meant to give a general guideline for our standard sizes. Some variations may exist due to options. When export packing is required (wooden crate etc.).

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