



The Sandvik WE8000 telescopic chute - better environment, reduced costs, increased profits.

Sandvik is a global industrial group with advanced products and world-leading positions in selected areas – tools for metal cutting, machinery and tools for rock excavation, stainless materials, special alloys, metallic and ceramic resistance materials as well as process systems. The Group had at the end of 2008 about 50,000 employees and representation in 130 countries, with annual sales of approximately SEK 93,000 M.

Sandvik Mining and Construction is a business area within the Sandvik Group and a leading global supplier of machinery, cemented-carbide tools, service and technical solutions for the excavation and sizing of rock and minerals in the mining and construction industries. Annual sales in 2008 amounted to about SEK 38,700 M, with approximately 16,800 employees.



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Sandvik Telescopic Chute



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Dust Control in Action

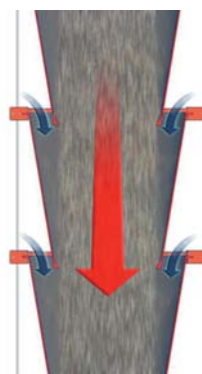


SANDVIK WE8000i TELESCOPIC CHUTE HAS VALUABLE BENEFITS

- Minimizes the risk of dust emission
- Improves employee working conditions
- Improves neighbouring environment
- Reduces material segregation and contamination
- Improves product quality
- Reduces maintenance and clean-up cost
- Improves work safety

BETTER ENVIRONMENT AND IMPROVED PRODUCT QUALITY

Dry bulk material contains dust and fines. When a material stockpile is laid down, it is probable that the dust particles will be spread around, resulting in both a bad working environment and impairment of the surrounding area. Material is lost, and maintenance and clean up costs increase. In addition, material segregation occurs in the stockpile, which can reduce the quality of the product, or even make it unsaleable.



The WE8000i telescopic chute prevents the emission of dust and loss of material. A vacuum is created inside the chute by the material flow, reducing the requirement for expensive, service demanding filtration systems. The user-friendly design enables easy maintenance. All in all, it gives great operational savings.

WIDE FIELD OF APPLICATION

The WE8000i telescopic chute has its rightful place within a great number of applications. Ballast production, minerals processing and fertilizer are some examples of the operations which can be made more efficient, by use of a telescopic chute.

The chute is of simple and robust design and the ratio between minimum and maximum heights is excellent. The number of conical chute segments can vary, depending on the height of the stockpile and that of the conveyor.

AUTOMATIC LEVEL ADJUSTMENT

The Sandvik WE8000i telescopic chute can be operated from the control cabin, via a PLC with automatic level sensor or manually via remote control. The chute senses its height above the material stockpile and automatically adjusts, minimizing the risk of dust emissions. The automatic level sensor minimizes the need for manual monitoring, and prevents the lowest conical chute segment from being in contact with the material stockpile. In addition, the electrical chain hoist is equipped with limit switches and overload protection to limit movement and prevent damage to the chute.

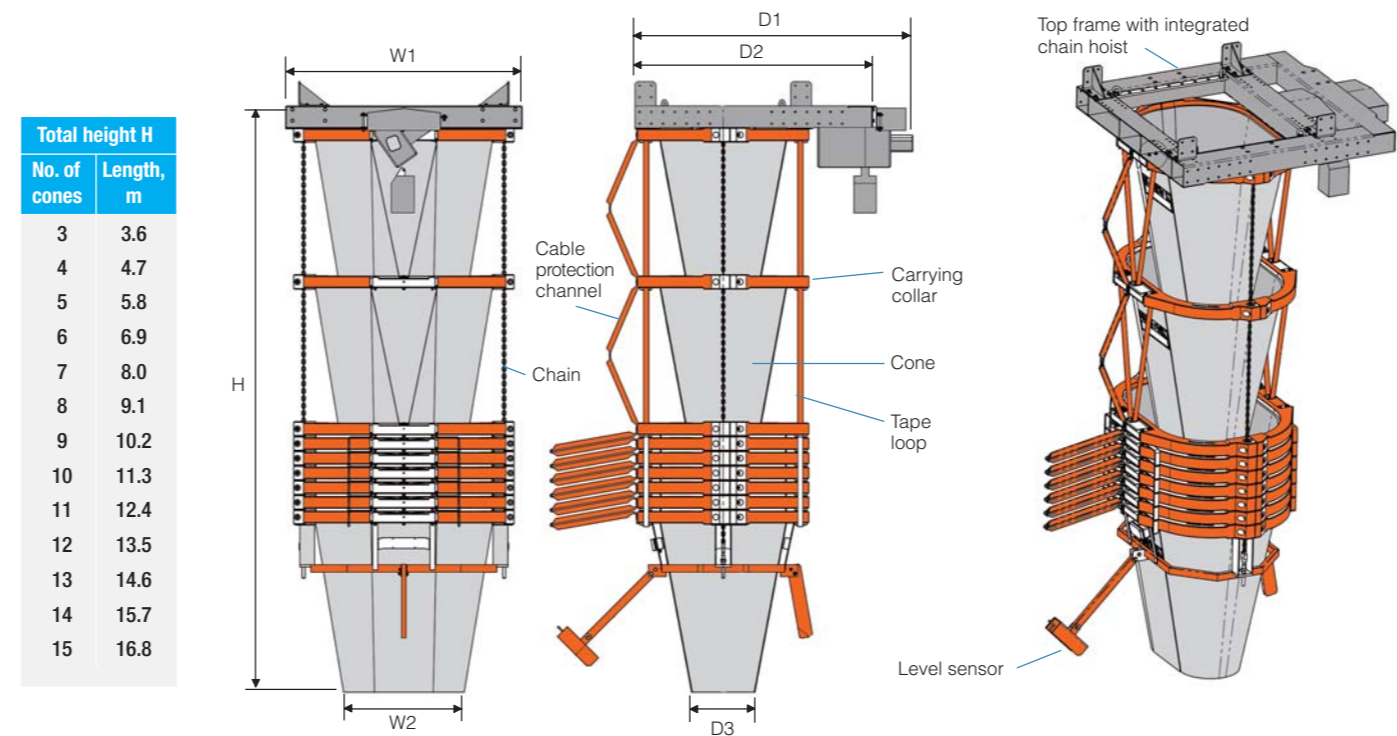
SEPARATE CARRYING COLLAR

The tape loops are fixed to a rigid lightweight, split carrying collar, which safely holds the replaceable conical chute segment in position. The carrying collar can easily be separated allowing the conical chute segment to be turned (if it is worn in one place) or replaced. Because the carrying collar is reused, the cost of spare parts is reduced.

OPTIMIZED CONICAL CHUTE SEGMENT DESIGN

The unique modular design allows for a choice of materials in different parts of the telescopic chute. The construction of the WE8000i chute segment is optimized for stiffness, long life and material flow.

Technical data WE8000i



Total height H	
No. of cones	Length, m
3	3.6
4	4.7
5	5.8
6	6.9
7	8.0
8	9.1
9	10.2
10	11.3
11	12.4
12	13.5
13	14.6
14	15.7
15	16.8

MAX. CAPACITY		WE8000i Small				WE8000i Medium				
Material type	Typical bulk density	Top size of material				Top size of material				
		<8 mm	8 mm	16 mm	25 mm	<8 mm	8 mm	16 mm	25 mm	32 mm
Crushed aggregate ¹⁾	1,6 t/m ³	250 t/h	350 t/h	500 t/h	700 t/h	400 t/h	600 t/h	900 t/h	1450 t/h	2050 t/h
Sand & gravel ²⁾	1,6 t/m ³	350 t/h	500 t/h	750 t/h	1000 t/h	600 t/h	900 t/h	1300 t/h	2100 t/h	2950 t/h
Ore ³⁾	3,9 t/m ³	550 t/h	800 t/h	1150 t/h	1600 t/h	900 t/h	1350 t/h	2000 t/h	3300 t/h	4600 t/h

1) Reference material (such as granite or recycled concrete). 2) Primary factor for this type of material is low interparticular friction (typical for natural sand and gravel). 3) Primary factor for this type of material is high interparticular friction and high bulk density (typical for ore and co-aggregates).

APPLICATION	WE8000i Small	WE8000i Medium
Suitable for material size	mm 0 – 25	0 – 32
Suitable for belt width	mm 500 – 800	800 – 1200
Suitable for belt speed	m/s < 2.5	< 2.5
Maximum wind tolerance	m/s 10	10
Maximum moisture content	% 2	2

Information required: Belt width, belt speed, drop height, max. material size, capacity and moisture content. Note: In most cases it is not necessary to have a chute that extends all the way down to the ground since stockpiles are rarely entirely removed.

DIMENSIONS	WE8000i Small	WE8000i Medium
Total frame assy. depth, D1	mm 1650	1890
Top frame depth, D2	mm 1430	1640
Top frame width, W1	mm 1100	1610
Cone outlet opening, D3 x W2	mm 230 x 450	350 x 750
Weight of each section	kg 60	100
Weight of top frame and chain hoist	kg 400	500

Information required: Customer or conveyor manufacturer must confirm that the conveyor can carry the weight of the telescopic chute. Note: If more dimensional information is needed, please contact your Sandvik Mining and Construction representative.

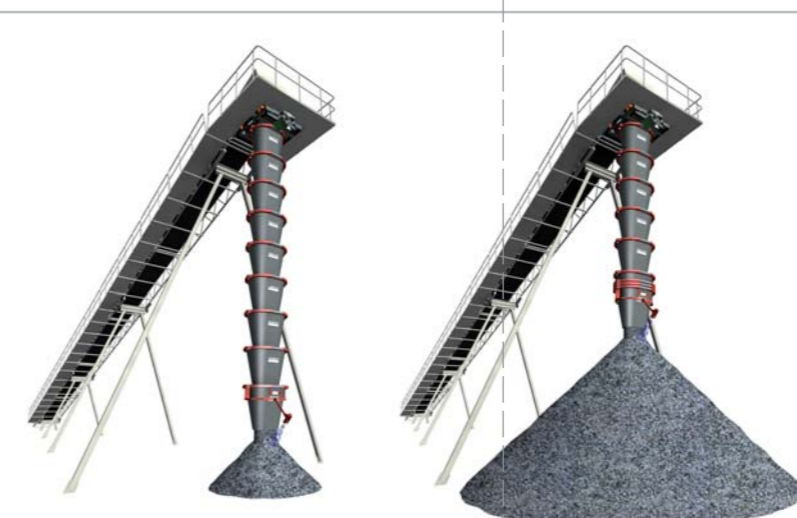
INSTALLATION	WE8000i Small	WE8000i Medium
Chain hoist small (max 1.5 kW)	pcs 3 – 15 cones	3 – 7 cones
Chain hoist large (max 2.3 kW)	pcs –	8 – 15 cones
Speed high	m/min. 8	8
Speed low (close to top and bottom)	m/min. 2	2

Information required: Automatic (with one or two level sensors) or manual (by remote control). Conveyor head design. Local power supply. Note: Standard electrical motor 400 V / 3-phase / 50 Hz / IP55. Please specify if another motor is required. Depending on conveyor head design and inclination some additional conveyor to chute attachment brackets might be needed.

If your application falls outside the limits specified above, please contact your Sandvik Mining and Construction representative.



The automatic level sensor means that the Sandvik WE8000i telescopic chute senses its height above the stockpile, and adjusts it so that the risk of dust emission is always minimized.



As the material stockpile grows, the WE8000i retracts as the segments are drawn into one another. Each segment only adds 100 mm to the overall length when fully retracted.



The carrying collar can be separated easily, and the chute segment replaced or turned. The modular design reduces down time and spare parts costs.