

WORLD RECORDS Highest Efficiency Conveyor Belts

From the start of conveyor belt production 110 years ago to the most modern, high-performance, conveyor belts.



Phoenix has always been the pioneer in the development, construction and supply of highest efficiency conveyor belts.









The strongest Conveyor Belt worldwide

24,000 m of a PHOENOCORD St 7800 were supplied to the Los Pelambres mine in Chile in 1999. The effective belt breaking strength is 8,600 N/mm. It is not only the strongest conveyor belt worldwide but it also has the longest and strongest splices. Aside from the static splice strength which is approximately equal to the belt breaking strength, the dynamic belt breaking strength as per DIN 22110 is 54%.









Technical Data	
Belt type	PHOENOCORD St 7800
Minimum belt breaking strength	7,800 N/mm
Belt width	1,800 mm
Belt length	12 km + 11 km
Belt weight	140 kg/m
Belt thickness	42.5 mm
Cover thickness	19T/10 mm
Protection system	PHOENOTEC
Rip detection system	PHOENOCARE SLT
Splice monitoring	PHOENOCARE SC
Conveyed material	Copper Ore
Quantity	11,000 t/h
Belt speed	6 m/s
Number of splices	77
Steel cord dia	13.2 mm





The strongest underground Conveyor Belt worldwide

In 1986 Phoenix supplied the world's strongest conveyor belt for underground use. The slope conveyor belt at Prosper II mine in Germany carries raw coal from 800 meters underground to the surface, while simultaneously on the bottom run washery refuse is brought back underground. The belt requirements were for 8,000 meters of PHOENOCORD St 7500 which has an ultimate tensile strength of 8,200 N/mm or 47,000 piw.







The highest Capacity Conveyor Belt worldwide

The highest capacity conveyor belts on earth carry up to 40,000 tons per hour. These PHOENOCORD St 4500 belts are 3,200 mm wide and 45 mm thick. They are installed on the biggest bucket wheel excavators worldwide of RWE in German lignite mining having a capacity of 240,000 cbm per day.







The heaviest Conveyor Belt worldwide

For the highest mine on earth at an elevation of almost 5,000 m, 17,000 m of a PHOENOCORD St 6300 were supplied to the Collahuasi mine complex in the Chilean Andes. In order to reduce the number of field splices, the single lengths were shipped on oval reels, having a weight of 58 tons. Such big single belt pieces have never been made before. The reel dimensions are: 5,2 m ong, 4,3 m high and 2,3 m wide. Thanks to this special packing method, 415 m of this big St 6300 fit on one roll.





India

International border

The longest Conveyor Belt worldwide

The longest conveyor belt without any additional drive along its path is conveying limestone from a mine located in India across the state border to a cement plant in Bangladesh. The single flight conveyor is 17,000 m long, incorporating 34,500 m of belting. The belt is 800 mm wide, type PHOENOCORD St 2500.

Bangladesh

PHOENOCORD™ St 2500





Cement plant

16515 m



The longest Pipe Conveyor Belt worldwide.

This pathbreaking application incorporates a 16.4 km long belt for the conveyance of hot clinker from a cement factory to the port on the upper run of the conveyor, and coal and limestone from the port to the factory on the bottom run.

The diameter of the PHOENOPIPE St 2500 belt is 300 mm. Both belt covers are equipped with PHOENOTEC cords to achieve the optimum restoring force. The smallest curve radius is 300 m. The path of the PHOENOPIPE conveyor belt is underneath streets.











The first self-extinguishing Steel-Cord Conveyor Belt worldwide

In 1975 Phoenix supplied 3,000 m of PHOENOCORD St 4000 to a German underground coal mine. It was the first conveyor belt to meet the highest safety requirements for underground applications worldwide. This grade has become a standard in most countries in the world.





The steepest Overland Conveyor Belt worldwide

5,500 m of PHOENOCORD® St 4000 are operating in the Pierina mine in the Andean Cordillera. This belt conveys gold ore at an angle of up to 18°. It is the steepest overland conveyor belt worldwide.

The fastest Conveyor Belts worldwide

The fastest conveyor belts worldwide run at a speed of 15 m/s. They are operating on the biggest spreaders on earth at the lignite mines of RWE in Germany.

Like all major conveyor belts, these 2,800 mm wide St 2500 conveyor belts are equipped with the PHOENOTEC protection system.







Phoenix conveyor belts for all kind of applications – up to the strongest and heaviest belts ever built. Please contact us for any assistance regarding your

conveyor belt requirements.

Phoenix Conveyor Belt Systems has the most modern testing centre worldwide for developing conveyor belts. Extensive quality tests ensure the technological lead of Phoenix conveyor belts.

Phoenix production locations meet the ISO 9001 quality standard and fabricate according to all the nationally relevant quality standards like DIN, SANS, MSHA, RMA, BS, AS, CSA, etc.

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