



Company News

## **Dos Santos International starts up first of two Sandwich Conveyors for Paris Tunneling Project**

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*Marietta (GA), United States -*



The DSI Sandwich belt high angle conveyor will elevate 800 t/h of tunnel muck at a 90° angle.

A particular challenge of this project was the requirement to provide a versatile system that will be reusable in future projects. Accordingly, DSI designed a system with a high degree of versatility – particularly extendibility. With all the

drive and take up equipment concentrated at the head end, DSI designed the vertical portion as a hanging structure which can be extended as necessary for higher lifts at future applications. The two conveyor designs are nearly identical, with only a small variation in the length of the vertical portion. DSI designed these conveyors for the possibility of increasing the lift to 40 to 45 m. The two conveyors in Paris are 24.6 m and 26.3 m and can be used for any intermediate height up to 45 m. This makes them very versatile for use at future prospect sites. Generally, and particularly in tunneling projects, a recurring challenge is to accomplish the sandwiched, curved transition from the low conventional loading angle, up to the, typically vertical, high angle while conforming to the vertical radius of curvature constraints of troughed belts. This is something DSI understands well. Often transition curves are offered too tight resulting in premature failure of the belt due to edge overstress and material spillage due to the belt's relaxation at the middle. Dos Santos International has proven they can always solve these problems without compromising the technology, performance and belt life.





DSI GPS is able to elevate material economically, at high volumetric rates in limited vault space.

The DSI Sandwich high angle conveyor continues to be the optimal choice for tunneling. DSI Sandwich belt high angle conveyors take on many forms and offer many advantages. Each DSI Sandwich Conveyor uses two standard, smooth-surfaced conveyor belts, face-to-face, to gently but firmly hug the product being

carried. This not only makes steep angles possible; it also offers a spillage free, environmentally sound operation because the material remains secured between the belts. In this instance, the wet muck can be continuously scraped from the belts eliminating carry back. A DSI sandwich conveyor is capable of higher conveying speeds and greater capacity than other high angle conveying methods. The availability of wide belts and hardware makes capacities greater than 10,000 t/h easily achieved with a DSI Sandwich conveyor. High angles of 90° are typical, and lifts of 300 m are easily accomplished. The use of all conventional conveyor parts ensures high availability and low maintenance costs, as well as interchangeability of components and fast delivery of replacement parts. Dos Santos International is the world's foremost authority on sandwich belt high angle conveyors, founded and led by the inventor of the system, Joseph Dos Santos. DSI was founded on its extensive worldwide experience in sales, engineering, and construction of bulk materials handling systems and equipment. This has included major contributions that have expanded the range of bulk handling and transport solutions. Most notably, advances in sandwich belt high angle conveyors have led to their worldwide utilization. The expertise of DSI spans a wide range of materials handling systems and equipment including high angle conveyors, high powered, high capacity, high lift slope conveyors and long overland conveyors utilizing the very latest technology.