

# RIO TINTO Kennecott Mine, Utah

Bingham Canyon Mine, Utah  
Summer 2020

The **crusher reduces approximate 150,00 tons of ore per day to pieces about 10" in diameter**. The ore is then transported on a five-mile conveyor at the speed of 900 feet per minute through a mountain tunnel and an additional two miles above ground to the Copperton Concentrator. Travel time is 28 minutes to the concentrator where the ore is collected. This crusher was moved due to a landslide.

RIO TINTO is installing several kilometers of new conveyor belt on the new overland conveying system for the crusher move.

The conveyor belt is a 118" B/W ST3500 conveyor belt with 1" top x 3/8" bottom, Grade 1 covers and rip detection loops and two 72" wide ST7100 belts with a splice length of 24.25'.

Almex was asked to participate in the supply of conveyor belt vulcanizing equipment to RIO TINTO Kennecott USA. This was a substantial upgrade to the equipment that was onsite and necessary to accomplish a risk-free splice for a project and belt configuration of this size.

RIO TINTO required urgent delivery of a large vulcanizer capable of splicing one of the largest conveyor belts in North America. Almex, in respect of the long term and global relationship, utilized 3 of its North American factories in order to achieve the delivery that is required.

The proposed solution was created with the strong consideration being given to the following factors:

- Reduction in the Capital Cost of the Equipment
- Reduce the delivery time for the equipment
- Deliver Safer Equipment for the operators
- Increase the performance characteristics of the equipment.

Almex engineers worked to provide custom vulcanizer that were optimized for RIO TINTO's expansion project but still be compatible with all the existing conveyor belts onsite. The outcomes of these efforts were a reduction in costs, weights and delivery.

Equipment recommended as part of the proposal included:

- SV10P-30586-22-200-SG1-43EB98-6P
- Almexpad Junior tablets
- SG1 Switchgear Control boxes
- HP25MAX Pumps

RIO TINTO also has an EMSYS Rip Detection System at Kennecott. Please refer to that case study.



Almex Group is a Canadian corporation that manufactures conveyor belt vulcanizers, splicing and belt repair adhesive and consumable products and tools, supporting equipment and services and training. Almex Group has 18 strategic locations worldwide and sells into 125 countries. With its financial headquarters in Toronto Canada and global manufacturing anchored by an Atlanta Georgia Campus, the company has centers of excellence for product development and design on six continents.

For more information, email [sail@almex.com](mailto:sail@almex.com) or call 1-800-977-5423. Please see [www.almex.com](http://www.almex.com) for details.

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