



Original Screw Failed by Corrosion and Abrasion After 3 Months of Operation

Improved Ribbon Screw Design Saves Compass Minerals Time and Money

Compass Minerals produces salt by solar evaporation from the Great Salt Lake. Mineral-rich brine is pumped into shallow ponds where the sun evaporates the water, leaving beds of naturally occurring crystallized minerals. The minerals are then gathered, cleansed and processed to produce all-natural products. Salt is removed from the brine and processed for consumer deicing, agricultural use, and water conditioning.

Challenge

The processed salt is extremely abrasive and corrosive. Batch mixers are used in the process to separate and remove impurities from the salt mixture. Batch mixer ribbon screws from the OEM were lasting approximately 3 months before replacement. Compass Minerals needed replacement ribbon screws that would last much longer so production would not be interrupted.

KWS Advantages

KWS provided an improved design utilizing abrasion resistant materials and shipped the replacement ribbon screws within 4 weeks after receiving the order. KWS created engineering drawings and documented every detail, so replacement ribbon screws could be shipped without delay. The improved KWS design has improved the service life by a factor of at least 10 when compared to the OEM design. Compass Minerals recently ordered another spare ribbon screw to keep on the shelf. Annual cost savings exceed \$100,000.00 per year.

Testimonial

"Another valued-added solution by KWS! Compass Minerals is very satisfied with the quality, delivery and service provided by KWS. KWS is our main source for difficult applications. You guys know your stuff!"

- Dean Madasz, Project Manager – Thompson Fabricating, Inc.



**Design
Engineering
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New KWS Ribbon Screw Utilizes Chromium Carbide Cladding and Hardsurfacing



Center Drive Shaft is 7-Inch Diameter Solid Bar with 1-1/2-Inch Diameter Posts for Mounting 1-Inch Thick Ribbon Flighting