

ASGCO®

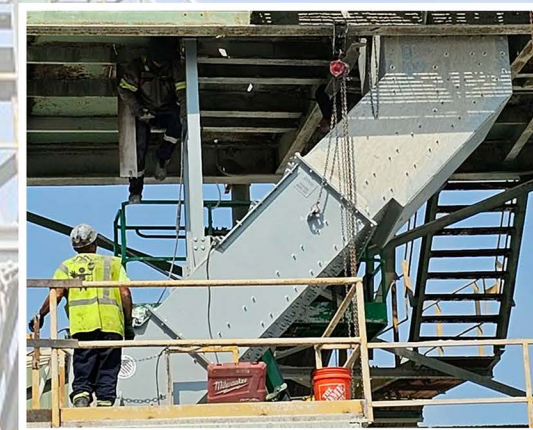
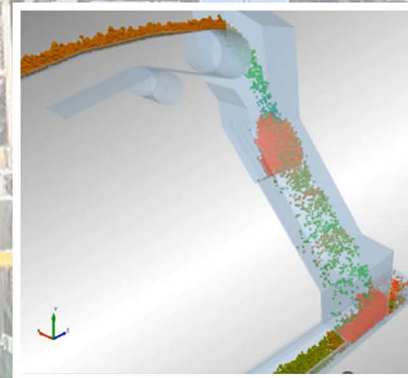
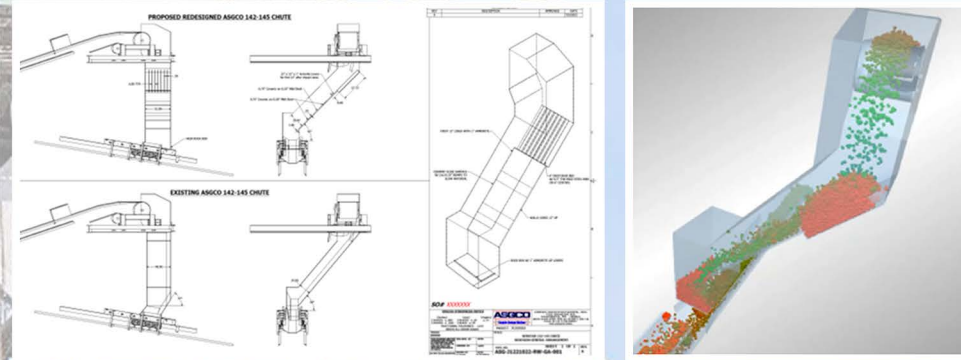
Complete Conveyor Solutions

ASGCO® ENHANCES CHUTE PERFORMANCE AND LONGEVITY



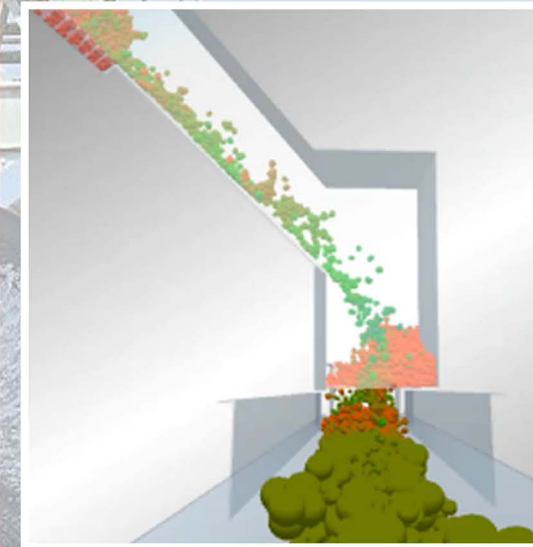
CHALLENGE:

A customer faced severe wear issues in their material handling chute system due to changes in material composition and chute design. The increased fines in the material concentrated wear in specific areas, while the high material velocity due to the chute slope intensified the problem. The chute handled materials such as limestone, granite, zinc, and clay, which contributed to accelerated wear. The existing liners were deteriorating rapidly, with white iron replacement liners wearing through in just three weeks and 1/4" x 1/4" CCO liners failing in only nine days. The most significant damage was concentrated in the chamfered corner of the chute.



SOLUTION:

ASGCO® implemented targeted modifications to extend the lifespan of the chute and improve performance. A 6" deep "dead bed" was installed to reduce impact and velocity, while the slide section was lined with staggered 1" thick ceramic to slow material sliding velocity. To further manage material flow and minimize wear, a rock box was added at discharge. The chute slope was reduced from 50 degrees to 45 degrees to slow down material velocity, and the rock box was offset to maintain center loading on the conveyor belt. Additionally, 24" of Armorite plates were installed between the dead bed and ceramic liners to provide added impact protection.



RESULTS:

After two months and the processing of 200,000 tons of material, the results were clear. The newly implemented solutions showed no signs of premature wear, a significant improvement over the previous system's rapid deterioration. The chute operated efficiently, with the belt center loading and tracking correctly, leading to a noticeable enhancement in overall system performance. The customer was highly satisfied with the enhancements and, impressed by the durability and effectiveness of the solutions, requested for a complete spare set of liners. The success of this project led to increased interest in additional ASGCO®-manufactured solutions, showcasing the ability to provide effective, customized material handling solutions that meet the toughest operational demands.

