



CDM Corrects Misapplied Conveyor  
**Application to Help Reduce Costs  
and Increase Production**





## THE SITUATION

A global Fiberglass Insulation Manufacturer used a combination of screw and belt conveyors in all of their North American plants to move glass cullet and batch. Belt conveyors were used when material had to be moved further than 30 feet and screw conveyors were used for shorter distance applications and when hanger bearings were not required.





## THE CHALLENGE

The tumbling nature of the screw conveyor agitated the highly abrasive material, which caused excessive wear and tear.

**MISAPPLIED CONVEYORS  
INCREASED HOUSEKEEPING  
AND MAINTENANCE  
COSTS WHILE REDUCING  
PRODUCTION OUTPUT.**

The belt conveyors – because they tend to only effectively use 20% of available space – needed more physical space and higher horse power for the job.

CDM needed to find a new, reliable conveying method for moving abrasive materials in a way that fit into the Manufacturer's existing floor space.





# THE SOLUTION

When one of the plant's aging screw conveyors was due for replacement, the Manufacturer decided to try a different method of conveyance. CDM reviewed the application, material and installation location before proposing a reinforced Drag Chain Conveyor to replace the screw conveyor.

**CDM ENGINEERED THE DRAG CHAIN CONVEYOR TO METER THE FLOW FROM THE BIN WITH MINIMAL CONVEYOR EXTENSION BEYOND THE INLET.**

## Client's Concerns About Using a Drag Chain Conveyor



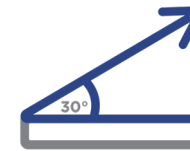
### Application Location

The conveyor needed minimal clearance between inlet and terminal shaft because of existing layout.



### Metering

The conveyor needed to meter the product feed from the bin without flooding the conveyor.



### Elevation

The product had to be elevated at an approximate 30-degree incline.



### Product Characteristics

The coarse cullet was difficult to handle and batch, so it was important to feed the downstream melter.



## THE RESULTS

The Manufacturer realized immediate savings from the reduced purchase price and installation costs of the Drag Chain Conveyor, which has now been in operation for more than 10 years.

In this same time period, the Manufacturer would have needed to replace screw conveyors 4-5 times.

Using A.R.S. 400BHN flights offered greater efficiency of the cross section over the previous conveying methods. The smaller footprint of the conveyor fit within the existing space of the screw conveyor without modification to surrounding equipment. The conveyor was also supplied with a zero speed switch, plug chute sensor and a chain break indicator.

**THE MANUFACTURER  
INCREASED PRODUCTION,  
REDUCED OPERATING AND  
MAINTENANCE COSTS,  
IMPROVED HEALTH AND  
SAFETY AS WELL AS  
VIRTUALLY ELIMINATED  
ENVIRONMENTAL AND  
DUSTING ISSUES.**

The plant now operates with planned outages in which chain and sprockets are replaced on 4-year intervals. The return rails have only been replaced once since installation.

Because of the benefits the Manufacturer received from custom-made equipment, CDM has supplied more than 25 conveyors in other North American locations.

