

Glass & Recycling

Dust and spillage mitigation solutions for your industry.



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Essential Solutions for the Glass and Recycling Industry

Benetech has the material handling expertise to help you get the job done. We understand the competitive nature of the Glass and Recycling Industry and realize that any downtime cuts into your bottom line. Not only are profitability concerns real, ensuring a safe workplace for your employees is an even higher priority. Benetech's cost-effective, rugged technologies are designed to reduce fugitive dust, stop spillage, improve material flow and ensure a safe environment. It is critical to control dust and spillage in glass plants and cullet operations. We have the integrated solutions to handle high purity sand, limestone, dolomite, soda ash, and cullets, protecting your belt and keeping your operation running at peak capacity.

Reduce dust and spillage while extending belt life with the use of engineered transfer chutes and superior load zone technology. Wash box applications may benefit glass plants to remove carry-back from belting and reduce dust exposure to workers. In addition, dust collection and spray dust suppression can help dust control needs.

Benetech's Total Dust Management technologies and services prevent problems before they occur, resulting in benefits that lead to successful operations.

The successful results our solutions provide:

- increased workplace safety
- reduced housekeeping
- lower O & M costs
- increased wear liner life
- decreased carry-back
- increased equipment performance and reliability

Load Zone Containment

Inspection Doors

Benetech conveyor chute inspection doors let you achieve both necessary steps safely and efficiently. The doors' distinctive design and proven technology provide you with complete and easy access for service and maintenance, as well as a tight seal against airborne dust.

Product Offerings

- An innovative door-deflector panel for less material build-up on the door seal
- Grease fitting on pinned hinges for no play or locking up
- Resilient door seals are hidden in the groove for long-lasting service
- Ergonomic cam-action and never-seize closing latches with adjustable tension for suite operation requirements
- Heavy-duty handles that won't bend
- Easy installation with a simple cut-and-weld or bolt-on process

The standard Benetech conveyor chute inspection door is available in mild steel (safety yellow) with an unlined deflector panel.

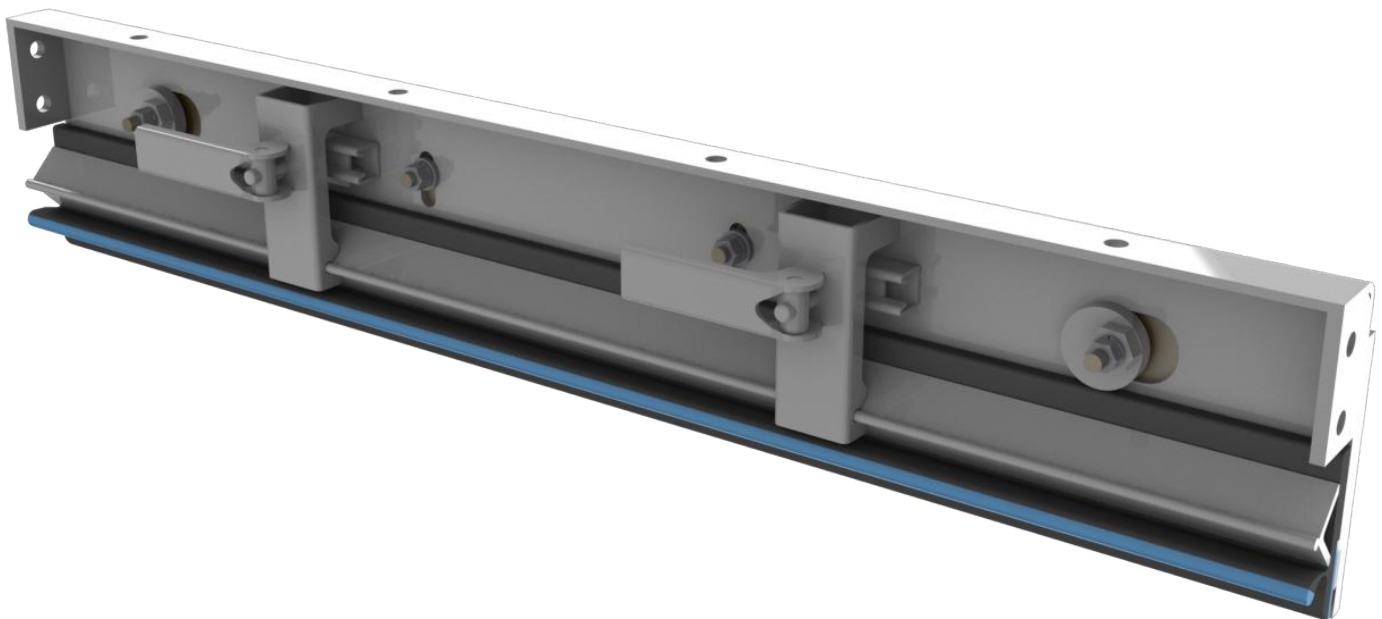
XN Liners

The XN Externally Adjusted Internal Wear liner is placed in the conventional position inside the skirtboard while the adjusting mechanism can be accessed from the outside. As a result, you never need to enter the chute to remove the liner or make adjustments.

This patented technology gives you instant advantages, including quick, simple wear liner replacements; no confined entry requirements; easily visible adjustment with immediate performance results; reduced early wear and erosion of skirt rubber; extended life of usable steel/chrome; and no more cutting/welding of wear liners.



Inspection Doors



XN Liner

Load Zone Containment

Inspection Doors



Before



After

XN Liners



Before



After

Belt Support & Alignment

Simple Slide Idlers

Benetech's Simple Slide Return Rollers allow for safe and simple installation and maintenance while providing optimal belt support between the discharge point and the tail pulley. In addition, the compact size of the frames allows for placement even in confined spaces.

Drop & Slide Idlers

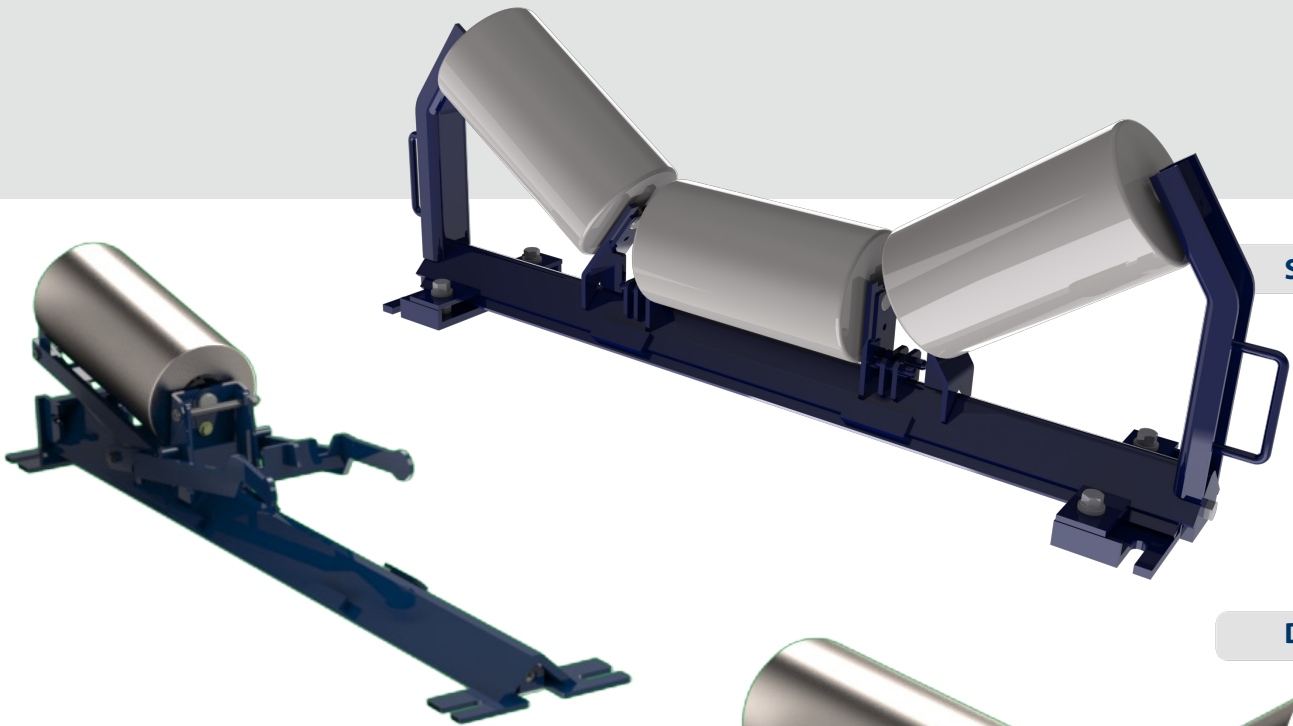
The Benetech Drop & Slide Idler can be completely dismantled, inspected, and serviced by one person from one side of the conveyor. When in the retracted position, the roller unit simply slides out from underneath the existing conveyor belt allowing for easy roller inspection or replacement.

Trackers

Benetech Training Idler responds instantly to the misalignment of the belt and does so without special modifications to the structure. Frame and guide rollers are often the cause of belt damage, which reduces the lifetime of the belt. The Benetech Training Idler requires no maintenance and fits into a standard drop bracket. The Benetech Training Idler can be manufactured to suit all belt sizes in operation in any country. Special design requirements, such as specific shaft dimensions and lengths, are possible at little or no additional charge.

Impact Beds

The Warrior Impact Bed stabilizes and supports the conveyor belt during loading, defending it from damage. The stiff, rigid frame and soft rubber bars of the Warrior cushion the belt and absorb impact. The result is longer belt life, eliminated spillage, and decreased O&M costs.



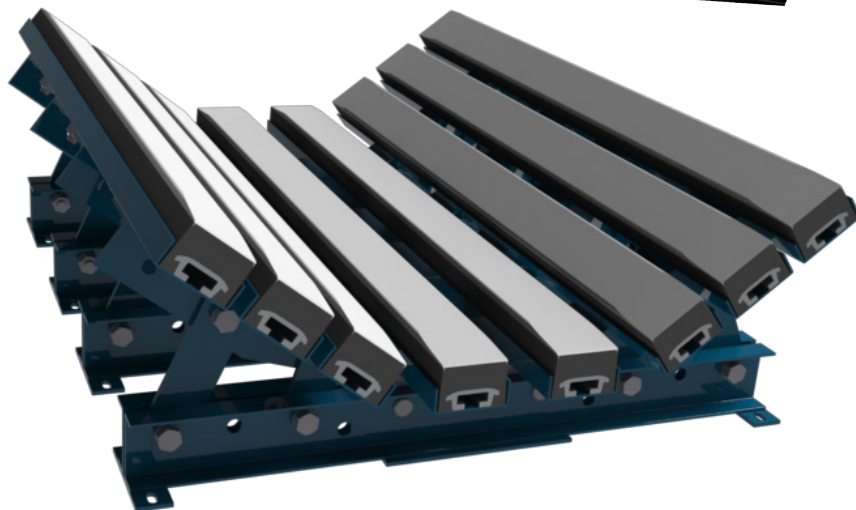
Simple Slide Idler



Drop & Slide Idler



Tracker



Impact Bed

Material Flow

Clean Sweep AC

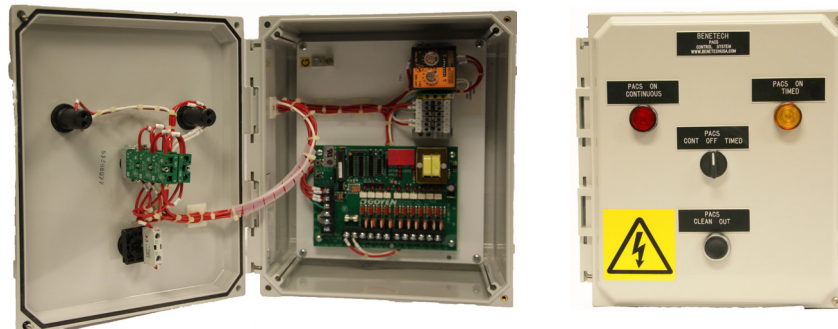
Distinctly designed for bulk materials, the radial Clean Sweep AC automatic cleaning system uses standard plant compressed air at 80–100 PSIG to prevent pluggage and eliminate build-up in transfer chutes, bins, hoppers, silos, and bunkers.

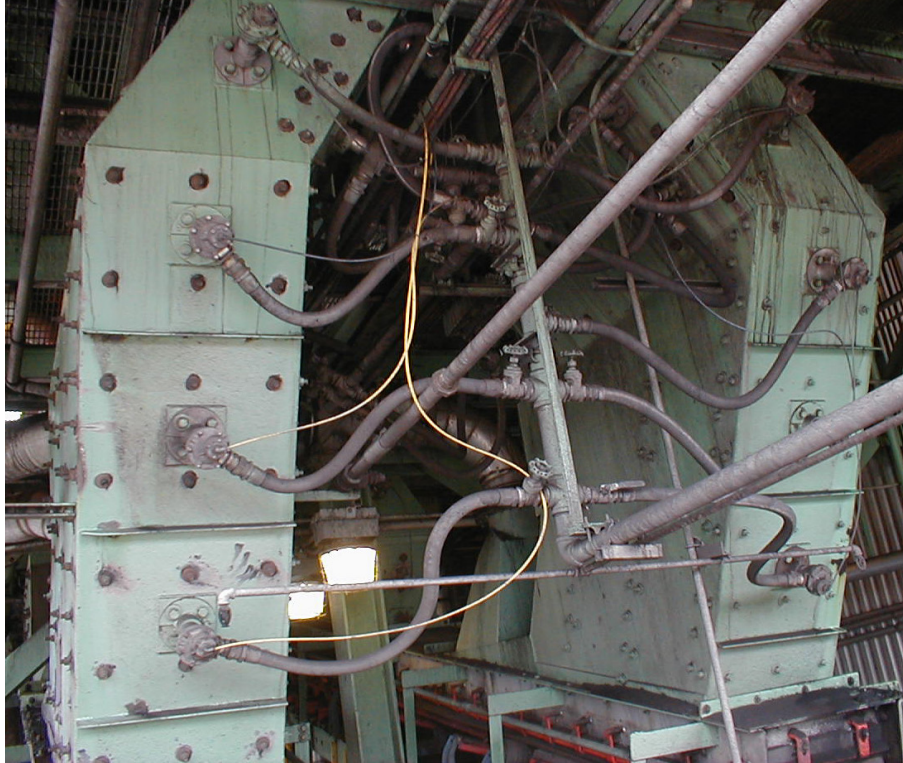
Easy to install and maintain, Clean Sweep AC is your trouble-free answer to ensuring uninterrupted material flow, especially for wet and sticky substances such as sand and cement. Clean Sweep AC is the only radial, pneumatic cleaning system created for bulk material handling and designed not to damage ceramic-lined chutes.

The system's automatic electronic controls trigger wear-resistant nozzles that sequentially fire precise bursts of plant air supplied through a quick-open/close solenoid valve to achieve less waste and maintenance. Each nozzle directs the air 360°, approximately two feet for 0.1 seconds along the surface of the chute work. In doing so, Clean Sweep AC impedes material from crusting or layering – rather, it dislodges and breaks up any potential accumulations for easy flushing by gravity and flowing material. Clean Sweep AC includes a remote air tank and control station for convenient ground-level access. As a result, there is no need to worry about installing large compressed air tanks on chutes, silos, or bunkers.

In addition, the Clean Sweep AC control panel and sequence timers can be located in an area convenient to operations, allowing personnel to make any adjustments needed for changing air pressure and rate of sequencing. Timing sequence and firing rates can be expanded (supporting up to 45 different nozzles) to accommodate a range of chute configuration changes.

Plus, unlike air lancing, which can result in injury and insufficient cleaning, Clean Sweep AC cleans automatically and does not require confined-space permits.





Dust Suppression

Chemical

At Benetech, we know dust control goes beyond using a chemical. It also calls for your program that applies methods based on premium support and technology.

Our engineers specialize in designing, fabricating, and installing custom dust suppression systems. That includes managing hydrophobic materials (those that try to repel water from the surface). Benetech dust suppression lowers the water's surface tension to a value closer to the material being treated, letting the water droplets capture more dust particles.

Benetech's chemical agents also are non-flammable, non-toxic, non-explosive, and biodegradable.

Benetech dust suppression allows you to reduce and control fugitive dust throughout your facility:

- Stockpiles
- Transloading hoppers
- Haul roads
- Stackouts
- Transfer points
- Rail and truck dumps
- Pugmills
- Ship-loaders

Our chemicals and applications solve challenges for diverse businesses, including:

- Aggregate operations
- Cement plants
- Ports and terminals
- Refineries
- Biomass power plants
- Mines/Quarries
- Pulp and paper mills
- Steel mills and coking facilities
- Coal-fired power plants
- Pet coke power plants
- Recycling facilities
- Waste transfer facilities

Application Systems

Benetech designs, engineers, and installs complete dust suppression systems. Our dust suppression methods produce powerful dust control for millions of tons of material each year. With custom systems in force worldwide, we provide the technologies that solve even the toughest material handling challenges.

Our systems serve a wide range of dust control applications:

- Anti-oxidizers
- Rail car unloading
- Conveying systems
- Slope encrusting
- Haul road
- Stackout suppression
- Pile sealant
- Transfer points suppression
- Rail car topper
- Truck top sealants
- We offer several state-of-the-art design options for superior results.



Before



After

Engineered Transfer Chutes

With over 500+ engineered chute designs worldwide, Benetech, Inc. applies advanced engineering technologies and years of experience to design material handling systems that upgrade your efficiency and improve safety.

By adeptly improving material flow issues, Benetech engineered transfer chutes to minimize production problems. This includes pluggage or choked flow; help eliminate spillage and airborne dust; and reduce high-impact areas, optimize belt life, and create longer intervals between service and maintenance.

Discrete Element Modeling (DEM) Flow Analysis

Benetech uses state-of-the-art DEM analysis to evaluate and optimize each material handling transfer point design in developing advanced transfer chutes. This pre-installation computer-modeling process anticipates your plant's potential downstream material flow problems and solves them before expensive mistakes interfere.

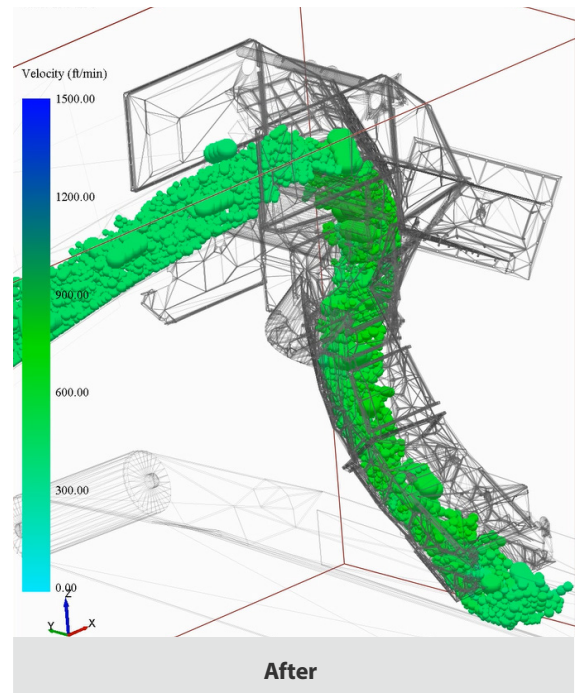
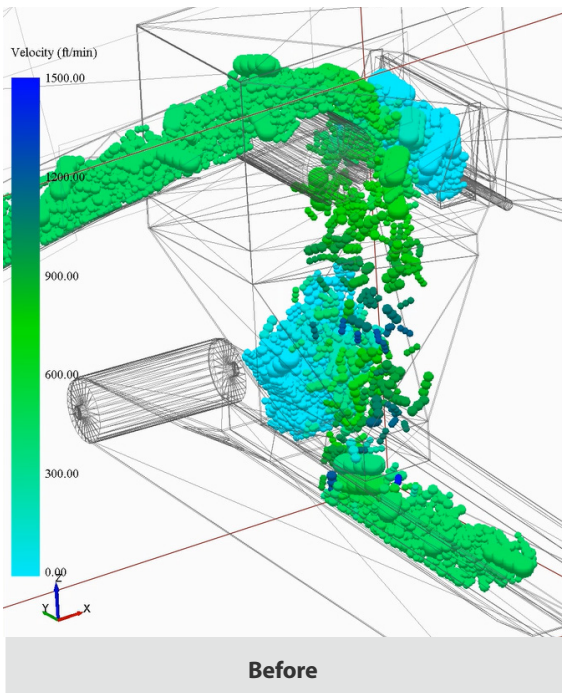
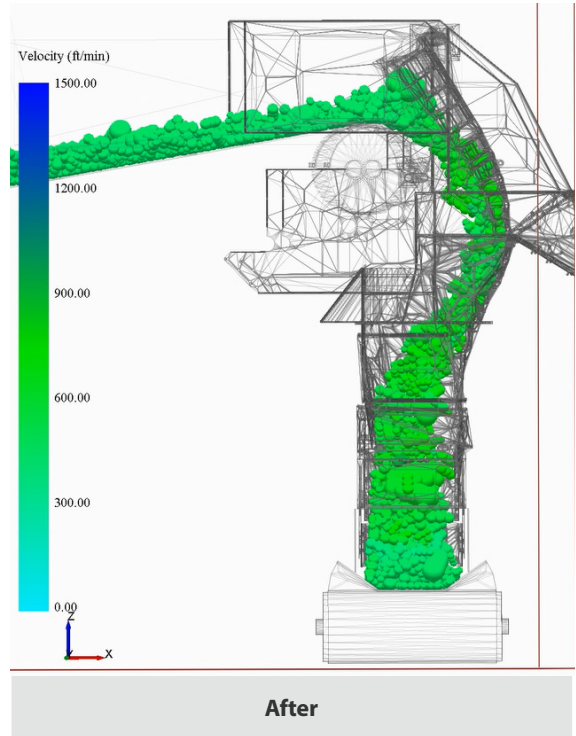
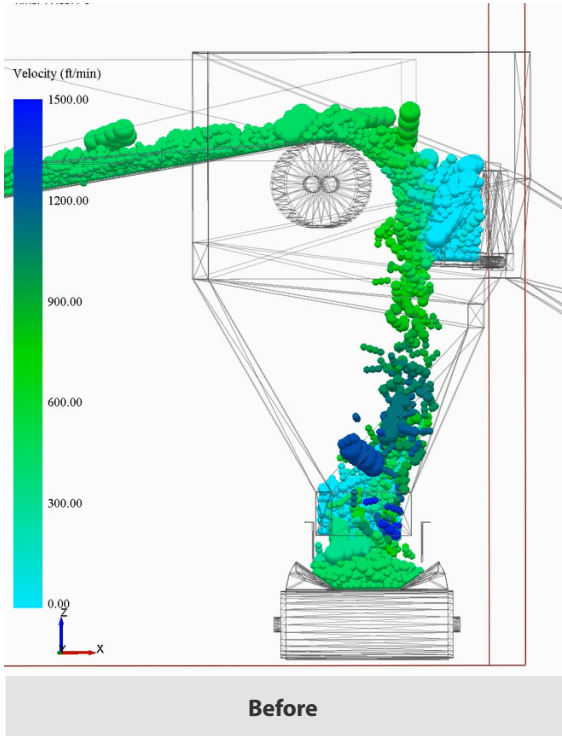
DEM chute designs are performed in-house by Benetech's highly trained and experienced chute engineers. All computer modeling also includes the latest multi-phase material flow and airflow engineering analysis based on Conveyor Equipment Manufacturers Association (CEMA) criteria. This enables precisely defined and controlled material movement from the head of the belt conveyor through discharge to the receiving conveyors.



Before



After



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