



BENETECH[®]

SAFE MATERIAL HANDLING SOLUTIONS

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Benetech Overview

Established in 1983, Benetech is a global leader in dust control and bulk material handling. Initially focused primarily on dust suppression, Benetech quickly became respected as the premier dust control provider in the United States. As client relationships grew, Benetech's expertise was called upon to handle a variety of bulk material handling issues. This natural progression drove our company's initiative in providing a complete line of material handling products and services. Through acquisitions and the building of "best-in-class" products for Dust Collection, Advanced Transfer Systems, Washdown Systems, Dust Suppression, and Conveyor Components, Benetech has become the only EPC with in-house engineering, equipment, manufacturing, research, chemical productions, and field service capabilities.

Today, Benetech is respected as a global leader in comprehensive, performance-based bulk material handling solutions. Our solutions are designed to comply with the standards and guidelines enforced by OSHA, EPA, MSHA, and other domestic and international governing bodies. We aim to provide a range of solutions to help our customers reduce dust, prevent spillage, and improve material flow throughout their facilities. Benetech's complete solutions toolbox address a wide range of issues in the bulk material handling systems at surface and underground mines, coal-fired electric generating plants, refineries, steel mills, pulp and paper mills, biomass facilities, cement plants, coal trans-loading facilities, aggregate, and stone operation.

Benetech's Services & Solutions Include:

- Conveyor Components
- Load Zone & Containment Products
- Dust Suppression Equipment
- Engineered Transfer Chutes
- Dust Collection Equipment
- Wet Dust Extraction
- Washdown Systems
- Assessments & Servicing

Industries We Serve:

- Aggregates
- Biomass
- Cement & Concrete
- Coal-Fired Power
- Fertilizer
- Glass
- Grain
- Kaolin & Clay
- Ports & Terminals
- Pulp & Paper
- Recycling
- Sawmills & Planning Mills
- Steel

Our Integrated Material Handling Solutions:

- Reduce Dust
- Prevent Spillage
- Improve Material Flow
- Ensure Compliance

Bulk Materials We Handle:

- Lime & Gypsum
- Potash, Soda and Borate
- Iron Ore
- Pet Coke
- Silica Dust
- Trona
- Coal
- Industrial Sand
- Crushed Granite & Limestone
- Kaolin
- Wood & Lumber byproducts
- Other Materials



Conveyor Components

Best-in-Class Equipment & Systems

- › Cleaning Systems
- › Belt Support, Tracking & Misalignment
- › Spillage Prevention
- › Superior Safety

Conveyor Components

Bulk material handling customers and processing industries depend on conveyor components. Conveyors and conveyor systems are used to move products and materials along the supply chain from one location to another. As an integral part of modern material handling, industrial conveyor systems add both efficiency and safety. Where manual product transportation was time-consuming and hazardous to employees in the past, using today's conveyor systems allows for fast and safe material flow, saving time, money and keeping employees safer. Benetech offers best-in-class belt Conveyor Components and accessories, including idlers, liners, v-plows, brush cleaners, diagonal plows, conveyor guarding, and belt cleaners for bulk material handling for your conveyor equipment needs.

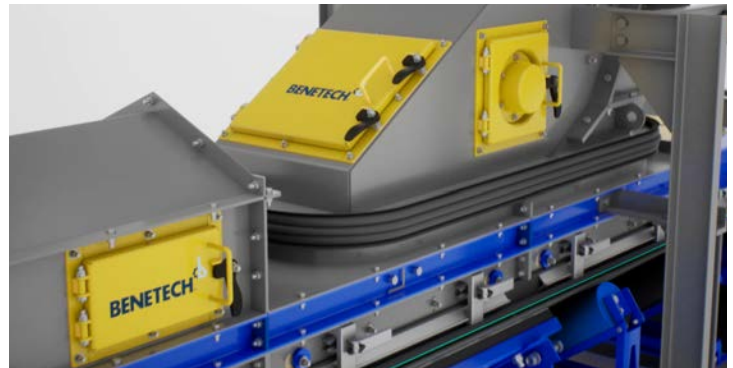
Belt Cleaners

- Primary
- Secondary
- Specialty
- Replacement Blades



Belt Support

- Replacement Rollers
- Troughing Idler
- Simple Slide Troughing Idler
- Drop & Slide Troughing Idler
- Drop & Slide Return Idler
- Impact Beds



Belt Misalignment

- Training/Tracking Idler
- Troughing Training Idler
- Reversible Training Idler

Spillage Prevention & Safety

- XN Liner
- Skirting Seal
- Inspection Doors
- Conveyor Guarding
- Return Idler Baskets
- Conveyor Covers



Belt Cleaners



Harder, Stiffer Urethane Formulation

Provides cleaning efficiency and extended wear-life of a metal blade without the disadvantages.

Flex Arcs

Provides blade flexibility for better belt contact, higher wear resistances and lower friction.

Retrofits To Competitive Brands

Sizes available to refit any major brand cleaner with the benefits of the AdvantEdge blade.

Wave Profile

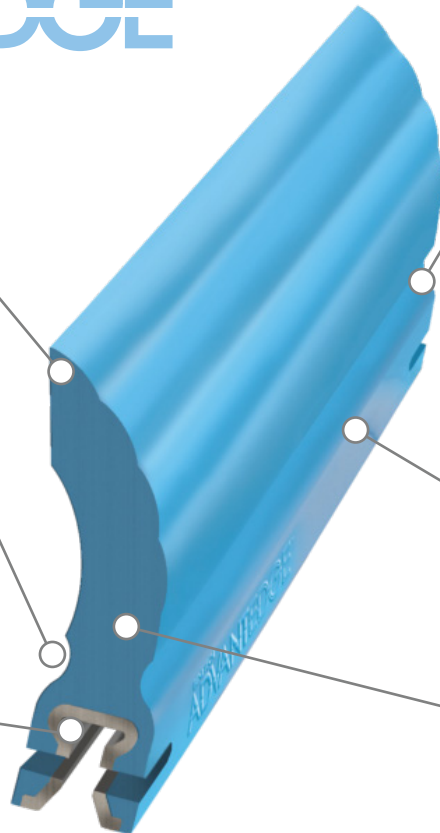
Ensures a variable attack angle to prevent tip bull-nosing and smoothes out pressure changes from the spring tensioner. Visual wear indication - 25/50/75/100%.

Worn Out Blade Check

When the bubbles are gone the blade is ready to change out. Patent-pending design uses more of the blade's urethane than any blade on the market. Results: less waste, less service.

Wear Length

Our centerline wear path is longer than the competition. Longer life line = Longer life.



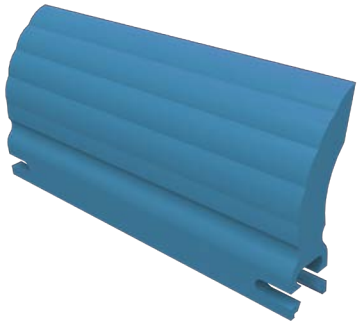
Retro Fit Blades

We use only premium urethane resins along with specific additives to achieve a superior blade product. Our replacement blades are specifically engineered to eliminate carryback by removing debris from the belt's surface. They are field tested and proven to withstand the most severe conveying environments. Blades are offered for the full line of belt cleaners.

Our AdvantEdge blade system will match any competitors' blades:

- Arch Gordon Saber
- Argonics Raptor
- ASGCO Skalper IV
- Flexco Conshear
- Martin MD QC1
- Martin HD
- Martin HD QC1
- Martin QC1
- Martin Pit Viper
- Superior Exterra

Belt Cleaners



Standard Acid-Resistant

- Material: Coke, Coal, Steel/Ore, Refuse, Bauxite
- Temperature: -20° to 160°F (-30° to 70°C)
- Acid Resistant
- Appropriate for 90% of applications



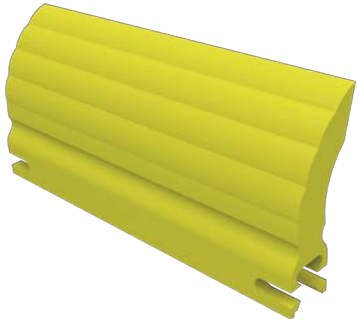
Chemical Resistant

- Material: Limestone
- Temperature: -40° to 160°F (-40° to 70°C)
- Chemical Resistant



High-Temperature

- Material: Clinker
- Temperature: -40° to 375°F (-40° to 190°C)
- Acid Resistant
- Intermittent Temperatures up to 450°F (232°C)



Abrasion Resistant

- Material: Aggregate, Rock, Stone, Glass, Wood Chips, Gravel, Sand
- Temperature: -20° to 160°F (-30° to 70°C)

Belt Cleaners

Primary Cleaners

The primary belt cleaning system is installed on the face of the head pulley to aid in the removal of material sticking to the belt after the main material stream has been discharged from the belt. Any remaining material sticking to the belt can be carried by the return side of the belt to other areas of the conveyor.

This “carry-back” is then deposited in piles under the conveyor, sticks to return idlers, sticks to take-up pulleys, sticks to bend pulleys, and sticks to or covers anything else it comes into contact with.

Problems arising from this carry-back can range from mistracking of belts due to uneven buildup of material on idlers, to premature belt wear from the belt being dragged through material piles and into conveyor structural members, and belt fires from the belt being dragged through material piles and even complete catastrophic belt failure from pulleys seizing.

BEP1 Primary

- Compact Design
- Easy Installation
- Simple Re-tension

Data

Belt Speed: 1000 ft/min

Head Pulley: 12"-15"

Tensioners: Rosta, Spring, Pneumatic



BEP2 Primary

- Compact Design
- Easy Installation
- Simple Re-tension

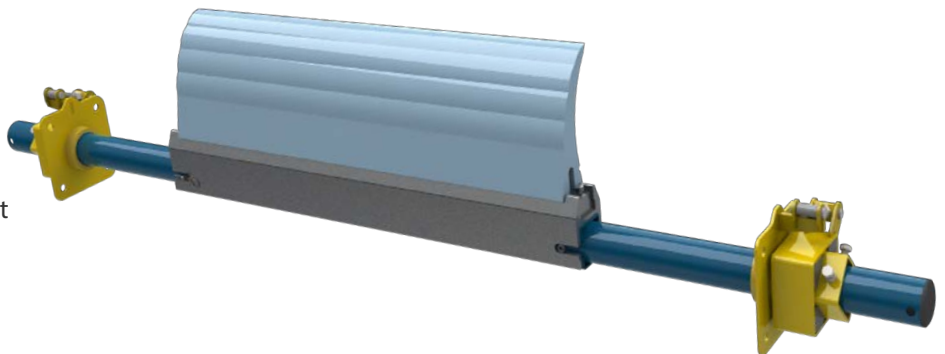
Data

Belt Speed: 1200 ft/min

Head Pulley: 18"-36" (457-962 mm)

Tensioners: Spring

Application: Heavy Duty, 13" Blade Height





Why Use Benetech Primary Belt Cleaners?

BEP1

Blade thickness and curvature allow the blade to belt contact to remain at about one inch throughout the blade's life. This minimum blade to belt contact allows better cleaning efficiency throughout the blade life. Conversely, our competitor's blade to belt contact is significantly thicker as the edge wears and reduces cleaning efficiency, and as these blades wear, more blade to belt contact causes more heat and decreases blade life.

Flex-Arcs on our blade give our blade flexibility for a couple of reasons. First, most head pulleys are not exactly round and wobble a bit. Belt cleaners need to have the flexibility to account for this wobbling and account for anything on the belt. Second, because of where these Flex-Arcs are located on our blade, the blade tip stays in constant contact with the belt, increasing the cleaning effectiveness of the blade. Competitors' flexibility is built into their blades by starting the tip of the blades thinner and getting thicker toward the bottom of the useable blade, thus more blade to belt contact and reducing cleaning efficiency.

Benetech blade urethane is harder than most blades on the market. More rigid urethane gives you a slippery urethane, reducing the friction to the belt when properly tensioned and giving a better cleaning efficiency.

The wave profile of the blade keeps a sharp edge on the blade throughout the blade's life. As a result, the cleaning edge stays the same throughout the blade's life to help with cleaning efficiency.

Benetech provides dual tensioners for all primary belt cleaners, no matter the belt width. The use of dual tensioning provides even blade to belt contact across the entire blade, preventing the "smiley face" effect seen by competitors' blades. Simple physics shows why dual tensioning should be used on all belt cleaners.

Belt Cleaners

Secondary Cleaners

Typical belt cleaning systems include one primary belt cleaner and more than one secondary belt cleaners. The secondary belt cleaner is installed on the return side of the drive pulley. It is used to remove the remaining material left from the primary cleaner of the carry-back sticking to the conveyor and return the fugitive material into the product flow.

This carry-back is then deposited in piles under the conveyor, sticks to return idlers, sticks gravity take-up pulleys, sticks to bend pulleys, and sticks to or covers anything else it comes in contact with. Secondary belt cleaners can be installed anywhere on the return side of the conveyor but are typically installed immediately after the belt leaves contact with the drive pulley. This keeps the material removed by the secondary belt cleaner in the dribble chute area of the transfer point chute work, where it can still be reintroduced back into the main flow of material.

Secondary cleaners should be installed where the conveyor belt is under reasonably high tension, providing a level/taut surface for the secondary belt cleaner to be in contact with.

BES1

- Excellent for cupped or worn belts
- Equal pressure across belt
- Continuous Belt-to-Blade Contact
- Blade Options: Rubber, Tungsten
- Belt Speed: 1000 ft/min
- Tensioners: Rosta, Pneumatic



BXS5

- Superior wear resistance
- Maintains belt-to-blade contact
- Overlapping blades for efficient scraping
- Blade Options: Tungsten, Ceramic
- Belt Speed: 1200 ft/min
- Tensioners: Rosta, Pneumatic





Why Use Benetech Secondary Cleaners?

BES1

- Easy blade replacement
- Simple tensioning system
- The lowest profile of all of our secondary cleaners
- Allows for installation in very tight spaces.

The one-piece blade makes for easier blade replacement. There is a center pin that is removable to replace the blade. This also gives better cleaning efficiency, no spaces between blades. The center pin holds the blade onto the shaft; the blade will conform to some irregularities in the belt and minor belt cupping. With a simple tensioning system, the Dual Rosta Arm tensioner will allow clips to pass through as long as whatever is on the belt isn't protruding excessively high. Simple linear tensioning by a threaded rod is tensioned once for the blade's life.

BXS5

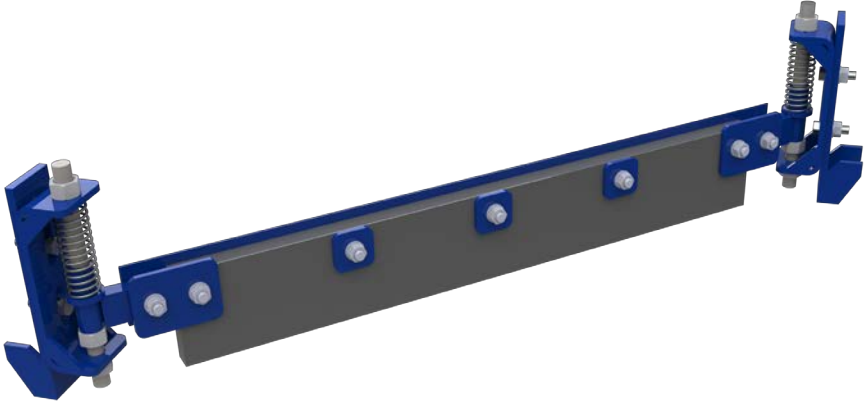
- Aggressive heavy duty cleaner
- Several blade options are available
- Blades overlap for cleaning efficiency
- Simple linear tensioning system

Individual blades mounted on Rosta joints to adapt to worn belts and allow belt clips to pass through. The high-efficiency blades with superior wear resistance maintain blade-to-belt contact. Double tensioning equipment gives better pressure distribution. Ideal for use on spliced belts.

Specialty Cleaners

Diagonal Plow

Benetech's Diagonal Plow is an economical way of keeping the tail pulley and bottom cover of the belt free of stray material. This design can be used to discharge fugitive material from either side of the conveyor and is built of a tough steel structure to hold up in even the harshest of conditions. This simple mechanism ensures that all potentially damaging material is removed, keeping your operation up and running with minimal maintenance and inspection.



V-Plow

The Benetech V-Plow is a simple and reliable design. Its sturdy "V" frame attaches to the mounting pole at two points, with a third point attached to an adjustable arm. This arm allows the Plow to be height adjusted in small increments to fine-tune the installation.



Specialty Cleaners

Washbox

The Wash Box is designed to provide cleaning efficiency by washing and cleaning the conveyor belt. Where contaminated products or regulations are of concern, the Wash Box will remove carry-back while cleaning the conveyor belt of any residual material.

The Wash Box is built with stainless steel, guaranteeing a longer life of the product by reducing rusting or oxidation, equipped with two of Benetech's best-in-class BXS5 secondary cleaners, high-pressure spray nozzles for removing waste, and rollers to remove excess water and to dry the belt.

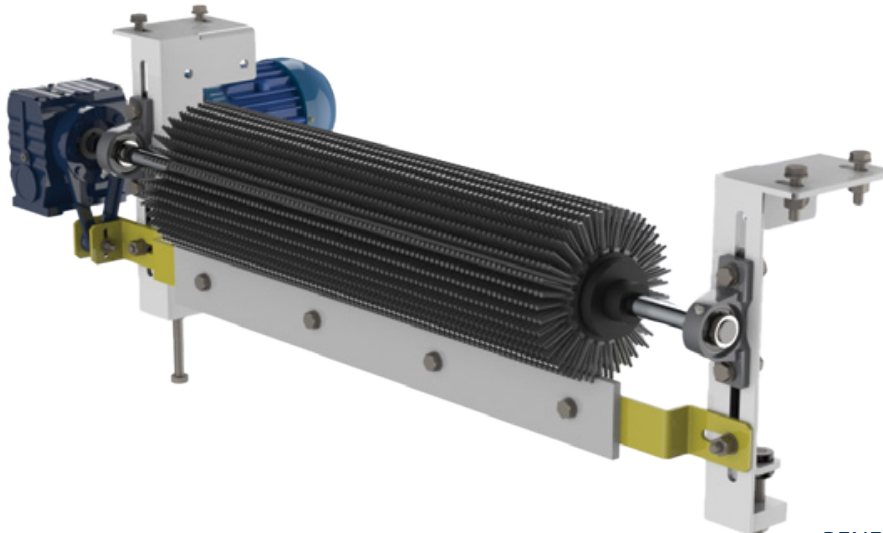
The purpose of the Wash Box is to guarantee the cleanliness of the Conveyor Belt. As soon as the equipment enters the cleaning system, the belt passes through the spray nozzles to moisten all residual material, as the secondary cleaners get to work removing the excess material and disposing of any waste through the funnel drainage basins. The conveyor belt returns washed and free of residual material.



Motorized Brush Cleaner

Typical plain conveyor belt cleaning systems include a blade-type belt cleaner. When a chevron conveyor belt is used, transient debris is trapped in the recessed areas and cannot be reached by a blade type cleaner. This debris, known as carry-back, is then deposited in piles under the conveyor, sticks to return idlers, gravity take-up pulleys, bend pulleys and covers, or anything else it comes in contact with.

The Benetech Motorized Brush Cleaner is one solution to reducing this transient debris. Rotary brush cleaners can be installed anywhere on the return side of the conveyor but are typically installed immediately after the belt leaves contact with the drive pulley. This keeps the material removed by the rotary brush cleaner in the dribble chute area of the transfer point chute work, where it can be reintroduced back into the main flow of material.



Belt Cleaner Tensioners

A tensioner is used on primary or secondary cleaners. The tensioners maintain precise and consistent tensioning on the blade, resulting in a constant cleaning pressure throughout the entire lifespan of the blade. Make sure that your conveyor belt has the proper tension for accurate tracking. Proper tension and tracking ensure your conveyor's life and lead to less downtime. Tensioners take up slack and allow you to adjust the tension on your conveyor belt. The most effective approach is achieved through a combination of cleaner and tensioner designs.

The investment for effective belt cleaning is justifiable on direct cost reduction for clean-up costs and extended component life. Two styles of tensioners are available for use on a pre-cleaner:

Rosta Tensioner

- Small footprint for easier installation around head pulleys
- Easy for installation, the design allows the tensioner to be rotated for ease of access/tensioning
- Four rubber Rosta's on each tensioner for blade pre-load gives constant tension throughout blade life
- The simplicity of the tensioner, one adjusting bolt to tension blade

Spring Tensioner

- The simple design allows ease of installation
- Typically used in cold weather climates
- One bolt tensioning for ease of use



Rosta Tensioner

- Self-contained tensioner
- Easy to set up at installation
- Simple to re-tension
- Self-adjusting to maintain
- Provides consistent cleaning pressure as the blade wear

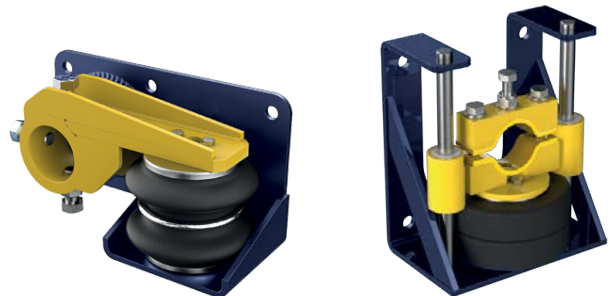


Spring Tensioner

- Provides consistent force across the width of blades
- Reduces the need for frequent blade re-tensioning
- Unaffected by extreme temperatures
- Available in two sizes

Self-Adjusting Pneumatic Tensioner

- Maintains precise and consistent tensioning on the blade, resulting in a constant cleaning pressure throughout the entire lifespan of the blade
- Automated via the control panel
- Reduces maintenance hours and labor often required to maintain optimum blade position and pressure with other tensioner types
- Extends life of both the belt and the cleaner



Belt Support

Fixed Frame Idlers



Steel & Impact Rollers

Designed with a triple labyrinth seal, Benetech's rollers have advanced sealing protection and are sealed for life bearings that never require re-greasing. Available in various belt widths and sizes, meeting all CEMA standards.



Troughing Idler CEMA C Standard & Impact

Benetech's troughing idlers are used to transition from an impact area or load zone. They can also be used to transition from a flat pulley area, picking or feeding area. Meeting all CEMA requirements and available in standard or impact, belt widths 24-72", and troughing angles of 20, 35, & 45 degrees.



Troughing Idler CEMA D & E Standard & Impact

Benetech's troughing idlers are used to transition from an impact area or load zone. They can also be used to transition from a flat pulley area, picking or feeding area. Meeting all CEMA requirements and available in standard or impact, belt widths 24-72", and troughing angles of 20, 35, & 45 degrees.



Return Idler CEMA C & D

Benetech's return idlers are used to carry the belt back to the tail pulley after the load has been dumped at the head pulley. Designed to meet CEMA standards, and available in different belt widths.

Belt Support

Simple Slide Idler

Installation and maintenance are easy when you use Benetech's Simple Slide Idlers. Roller frames slide into place without the need to remove adjacent idlers, resulting in ideal serviceability and improved safety. In addition, the compact size of the frames allows for placement even in confined spaces, assuring that you are getting the belt support you need.



Simple Slide Return Idler

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.

Features:

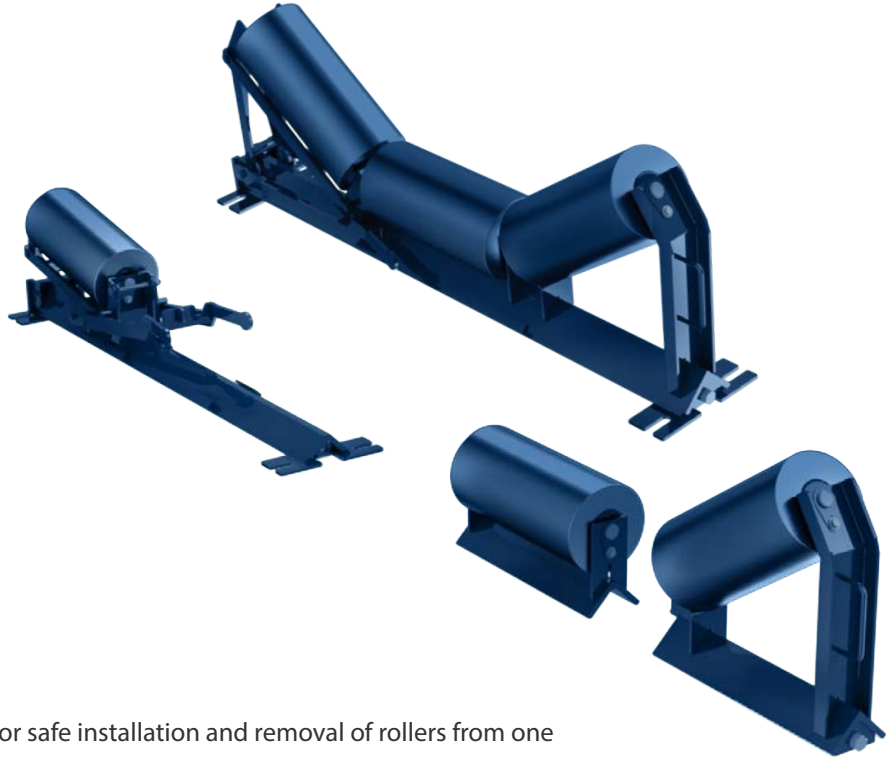
- Great in Confined Spaces
- Roller Frames only need 8" (200mm) of width when using 6" (150mm) rollers
- Easy Installation and Service
- No need to raise belt or remove adjacent idlers Improved safety
- Slide-out/ slide-in roller frames allow for safe maintenance
- CEMA class C, D, or E
- Available with standard or wide base frames



Belt Support

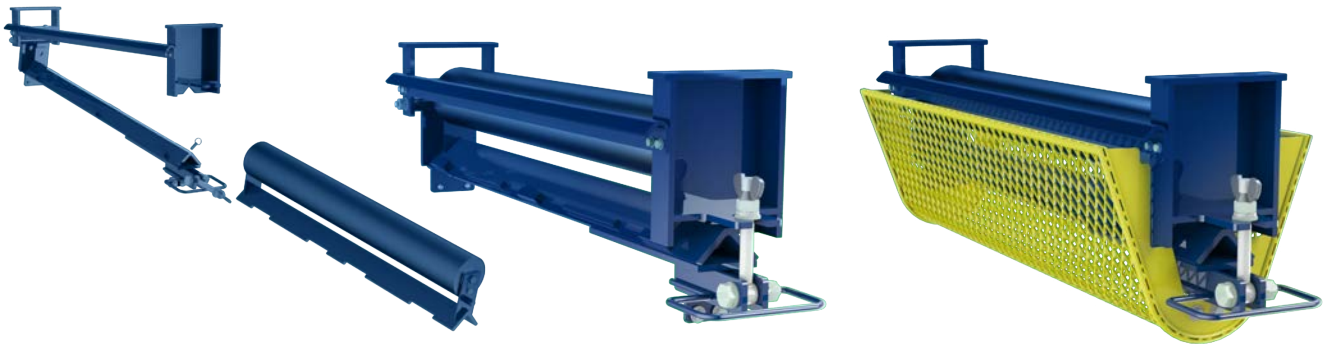
Drop & Slide Idler

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.



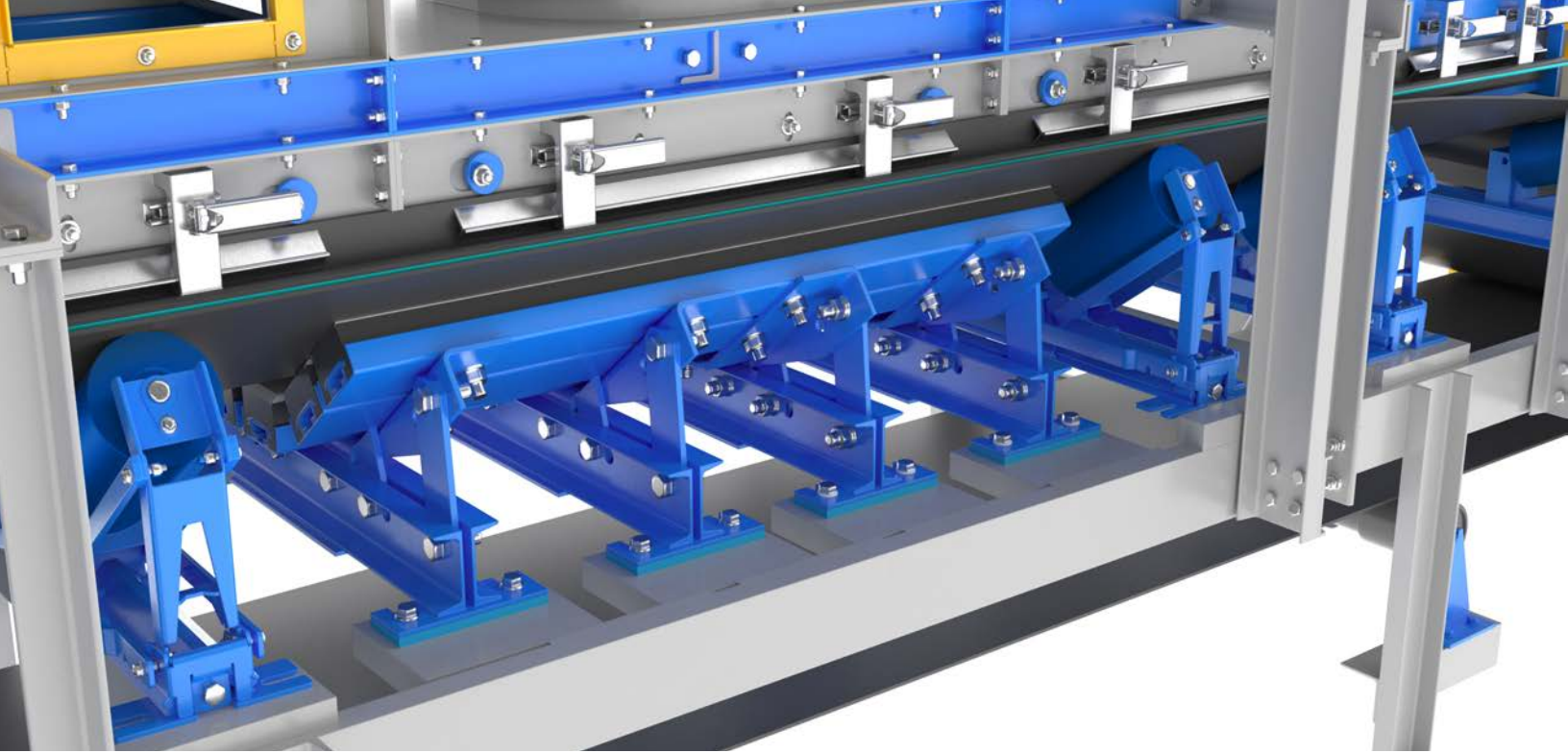
Drop & Slide Return

Benetech's Drop & Slide Return Rollers allow for safe installation and removal of rollers from one side of the belt when access is restricted. The design of the frame assembly allows for placement even in confined spaces, allowing one person to change out the return roller easily and safely.



Features:

- Available with standard or wide base frames
- It comes in any belt width
- Available to purchase frame alone or with rollers
- It can be customized to fit any idler manufacturers' rollers



Warrior Impact Beds

Belt support is a critical component when conveying heavy bulk materials. The Benetech Warrior Impact Bed is designed to sit beneath conveyor belts at the load zone where the most abusive impact occurs. It cradles the belt and provides stability and shock absorption to prevent spillage and premature belt wear.

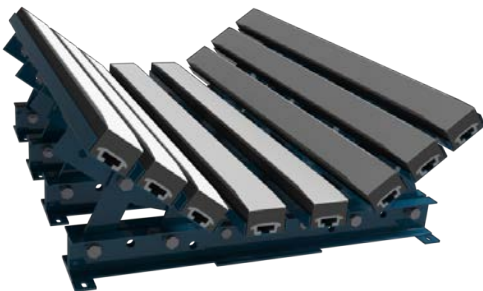
After the first full troughing idler, the Warrior Impact Bed should be placed directly underneath the belt's loading point. If more than one loading point exists, it is acceptable to place Warrior Impact Beds under each one.

A Benetech Slide Out Idler should follow each Warrior Impact Bed and then a Warrior Roll & Guide Support Bed. These components are necessary for optimum performance.

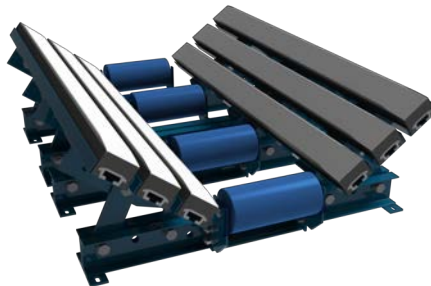
Features:

- Adjustable Trough Angle: 20°, 35°, or 45°
- Heavy Bulk Material
- Belt Speed: 1000 ft/min

Impact Bed



Standard Roll & Guide



Impact Roll & Guide



Belt Alignment

Widely used in the mining industry and other conveyor-related industries, the 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.

Training Idler

- Single direction conveyor belts
- 295 ft/min – 1181 ft/min
- Belt widths: 28" – 72"
- Operational loads: 473lb to 1719lb
- Operational temperatures: -40°F to +176°F
- Suitable for all materials



Troughing Training Idler

- Easy to install
- Self supporting structure
- Customized for each application
- No welding or cutting required
- Bolt-together design
- Heavy-duty steel construction



Reversible Training Idler

- Dual direction conveyor belts
- Belt widths: 17" to 102"
- Operational temperatures: - 40°F to +176°F
- Suitable for all materials



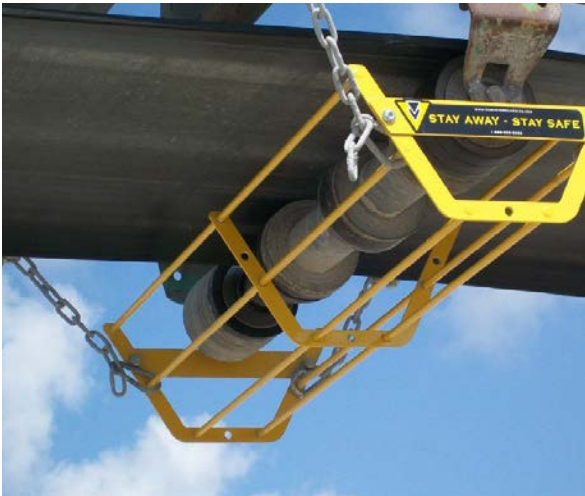
Belt Safety

The self-supporting guards are designed for a variety of applications. They are commonly used to guard tail sections on conveyors. Staff at bulk material handling plants spend notable time near moving mechanical parts and material flow. Conveyor guarding helps protect your employees from moving parts and pinch points on the conveyor with conveyor belt guarding, especially around tail-pulley sections and gravity take-ups.



Conveyor Guarding

- Single direction conveyor belts
- 295 ft/min – 1181 ft/min
- Belt widths: 28" – 72"
- Operational loads: 474lb to 1720lb
- Operational temperatures: -40°F to +176°F
- Suitable for all materials



Return Idler Guarding

- Easy to install
- Self supporting structure
- Customized for each application
- No welding or cutting required
- Bolt-together design
- Heavy-duty steel construction



Tool-Free Conveyor Belt Covers

A corrosion-free, environmentally friendly, safe, and efficient conveyor belt cover.

After defining the components of primary importance in the project design of a belt conveyor, it is essential to consider other accessories such as covers for the conveyor. Tool-Free Conveyor Belt Covers protect the conveyor belt and components all-year-round elements of sun, wind, rain, and snow. The covers protect the conveyed materials and avoid powders' dispersion. The necessity to protect belt conveyors may arise from the weather, the volatile characteristics of the conveyed material, or the type of works plant. For example, extreme temperatures may cause the plant to malfunction or stop. At the same time, powerful wind may move the conveyor belt off-center its natural position causing severe problems to the business or loss of conveyed material.

Product Offerings:

Hoops & Covers

- Galvanized or stainless steel hoops with HDPE (white) or Polycarbonate (clear) covers. Full, 1/2, or 3/4 covers in standard 4ft sections.

Corrosion-Free Latches

- Accessible from both sides of the conveyor, the anti-seize latches provide easy access. Remove cable clips and raise the cover.

Features

- Tool-Free
- Anti-seize latches
- It opens from both sides
- Corrosion-free working hardware

Benefits

- Protects belt and components from elements
- Increase lifespan of the belt
- Reduces dust and noise
- Easy visual inspection of conveyor

Inspection Doors

Proven technology helps contain airborne dust while providing easy access for inspection and maintenance.

Benetech's Inspection Doors allow you to tackle these necessary steps head-on. These easy-to-install doors have a unique design that will enable you full access to service and maintenance while providing a dust-tight seal. Benetech's Inspection Doors are a proven technology that helps minimize airborne dust and spillage while providing easy access.



Premium Plus Inspection Door

- Dust-tight seal
- Wearliner optional
- Greased fittings on pinned hinges
- Never seize latches
- Easy to install
- Custom sizes available
- Screen option available



Premium Inspection Door

- Dust-tight seal
- Wearliner optional
- Stainless steel optional
- Never seize latches
- Easy to install
- Custom sizes available
- Screen option available



Standard Inspection Door

- Dust-tight seal
- Low-profile design
- Easy to install
- Custom options available
- Custom sizes available
- Screen option available

Inspection Doors

Specialty Doors

Product Offerings

- Unique door deflector panel blocks material from accumulating on the door frame
- Grease fitting on pinned hinges for no play or locking up
- Resilient door seals protected groove for long-lasting
- Ergonomic cam-action and never-seize closing latches with adjustable tension
- Easy to install cut the hole and bolt it on
- Mild Steel construction with outlined deflector pan, painted safety yellow



Applications

- Mixers
- Blenders
- Vessels
- Chutes
- Belt Conveyors
- Screw Conveyors
- Boilers
- Crushers

Sizing Options

- 7x14
- 12x12
- 12x18
- 18x18
- 18x24
- 24x24
- Custom Sizes Available*



Load Zone & Containment Solutions

Economical Solutions For Your Transfer Point Needs

- › Reduce Load Zone Spillage & Dust
- › Reduce Conveyor Maintenance Cost
- › Increase Operating Efficiency
- › Increase Plant Safety

Load Zone & Containment

BENETECH. MaxZone® Series

MaxZone® Premium

Modular Skirtboard System

Benetech's patented MaxZone® Modular Skirtboard and Belt Support System seals your load zone to reduce airborne and fugitive dust, preventing product loss and spillage while improving material flow. This system also can be retrofitted to accommodate and enhance an existing system as an economical solution to sealing and protecting your load zone.

When budget and time constraints rule out a total system replacement, the MaxZone® Modular Skirtboard and Belt Support System is your answer for an economic transfer point and load zone. With the system's modular design, you can replace components without special permits or extended shutdowns. In addition, installation is simple and affordable, and no welding is required.

MaxZone® Bundled Kit

- 2' or 4' Tailbox
- 4ft Loading Section
- 4ft Full Height Sections
- Peaked or Flat Hoods
- Dust Curtains
- XN Wearliner
- Skirting Seal
- Dust Tight Inspection Door
- Warrior Impact Bed
- Simple Slide Idlers

MaxZone® Standard

An Economical Solution for Your Transfer Point Needs

The MaxZone® Standard is the latest addition to our MaxZone® Series. When the material and application require it, this cost-effective containment system solves dust and spillage issues. With optional features that can be tailored to your needs. We have the solutions to help keep your operation clean, safe, and efficient.

Features & Benefits

- No welding or hot work required
- Easier maintenance of components
- Minimum downtime for installation
- Reduce dust and spillage
- Modular Skirting System
- Skirting Seal options available
- Inspection Door option available



Load Zone & Containment

BENETECH MaxZone[®] PREMIUM

Easy Change Dust Curtain

Interrupts airflow and allows dust to settle on belt reducing fugitive dust and improving housekeeping.

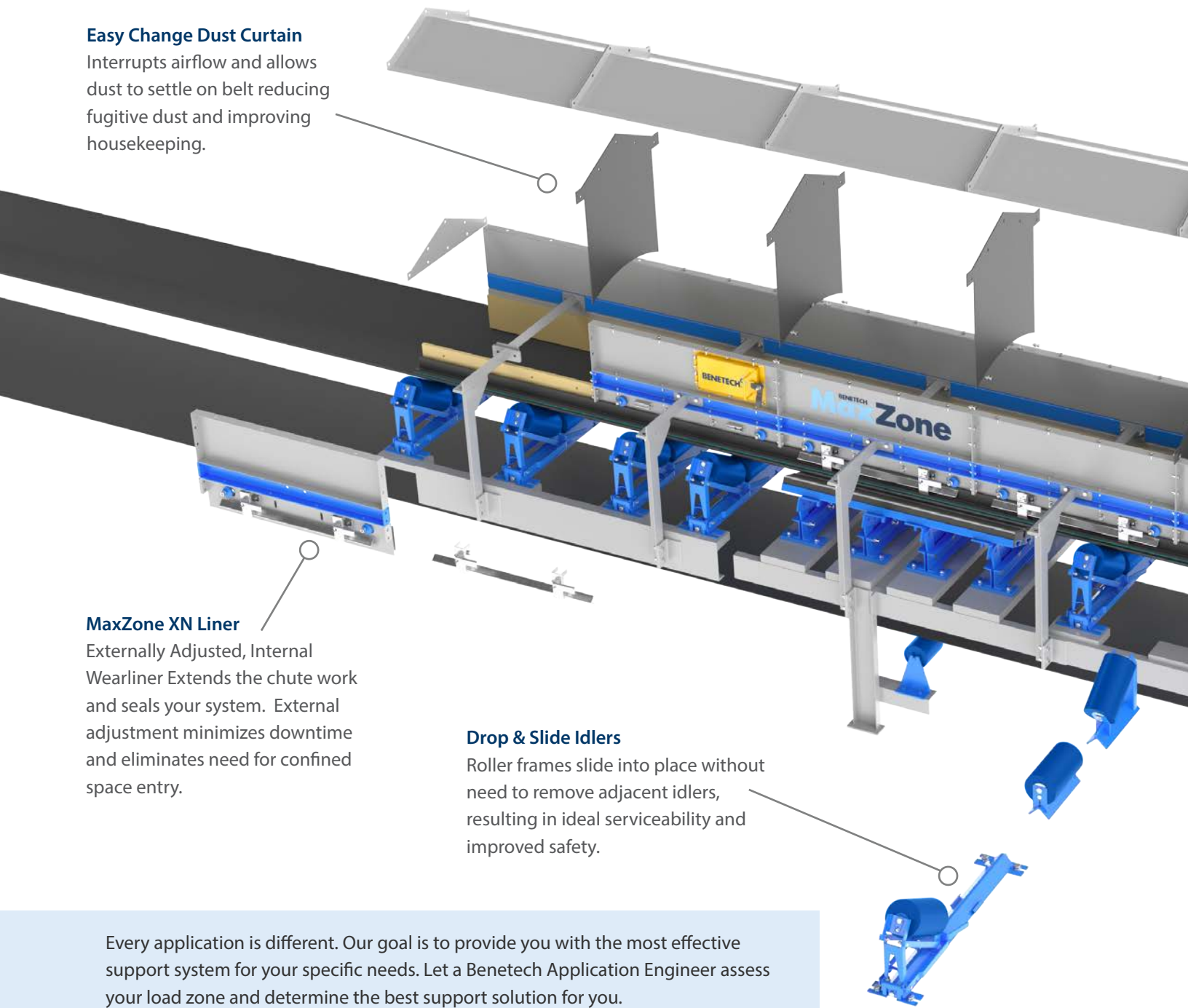
MaxZone XN Liner

Externally Adjusted, Internal Wearliner Extends the chute work and seals your system. External adjustment minimizes downtime and eliminates need for confined space entry.

Drop & Slide Idlers

Roller frames slide into place without need to remove adjacent idlers, resulting in ideal serviceability and improved safety.

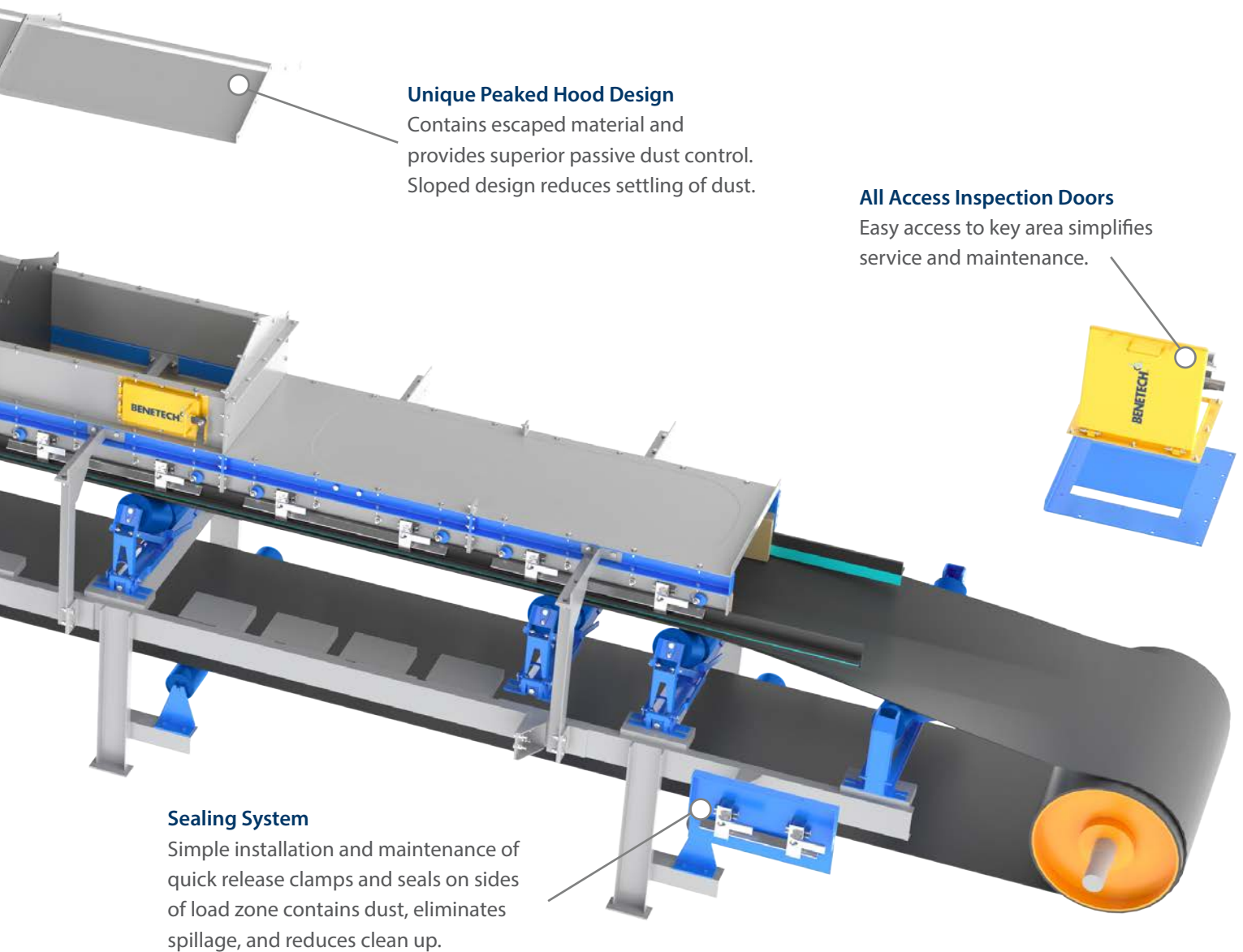
Every application is different. Our goal is to provide you with the most effective support system for your specific needs. Let a Benetech Application Engineer assess your load zone and determine the best support solution for you.



Load Zone & Containment

Modular Skirtboard System

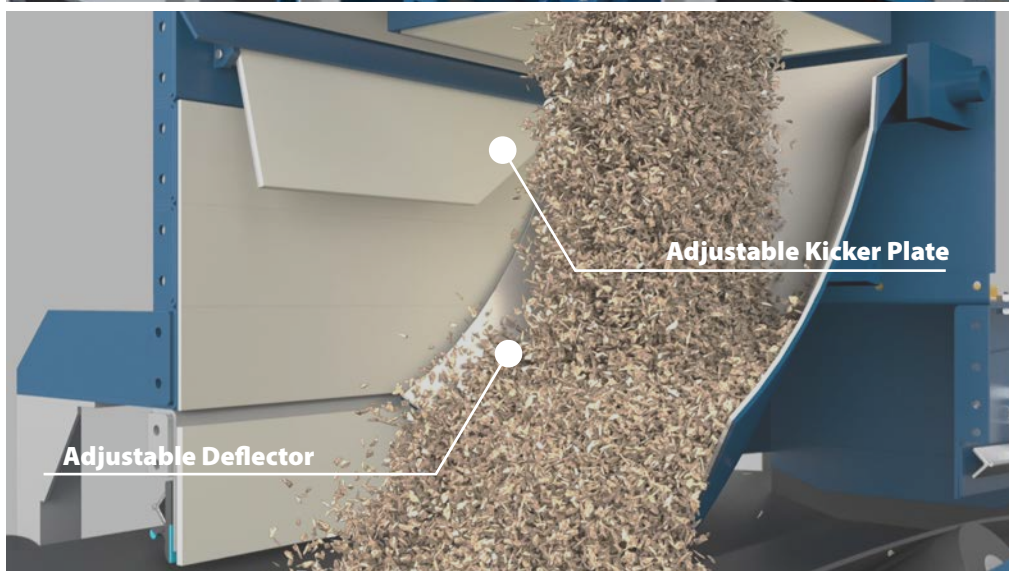
Optimum productivity is impossible to attain without the proper belt support in place. Damaged belts, material spillage, and increased downtime hurt your efficiency and make the job of moving material much harder than it needs to be. Turn to the MaxZone Belt Support System to take that worry away. Based on extensive knowledge and hands-on experience, these products have been designed to maximize material flow and ensure a superior belt support system.



Unique Peaked Hood Design
Contains escaped material and provides superior passive dust control. Sloped design reduces settling of dust.

All Access Inspection Doors
Easy access to key area simplifies service and maintenance.

Sealing System
Simple installation and maintenance of quick release clamps and seals on sides of load zone contains dust, eliminates spillage, and reduces clean up.



Load Zone & Containment

BENETECH MaxZone[®] PLUS

A low-cost solution to combat off-center conveyor loading without costly chute redesign.

Benetech understands the difficulties of fugitive dust and spillage from poorly designed transfer points and load zones. The underlying issue is often a misaligned transfer point chute creating a flawed material transition onto the receiving belt. Improper or off-center loading can lead to several problems. First, when the material is loaded to either side of the belt, it creates excessive spillage and dust and threatens to mistrack it fully. Mistracking can damage the conveyor; cause uneven wear; make the motor work harder, and even create safety issues. These potential downsides frequently result in costly maintenance, housekeeping, and material loss.

Although these problems should be addressed, time and budget constraints do not always allow for engineered load zone chute replacement, the best option to solve most conveyor material-flow issues. To overcome this, Benetech has developed a new low-cost solution to combat off-center conveyor loading without costly chute redesign: the MaxZone[®] Plus system. The adjustable side kicker plates and deflector move material forward onto the conveyor belt to center load the material correctly for a smoother transition onto the moving belt. With 6" removable side panels to accommodate chute configuration, the MaxZone[®] Plus can be installed easily into an existing Benetech MaxZone[®] and retrofitted to other containment systems.

Features & Benefits

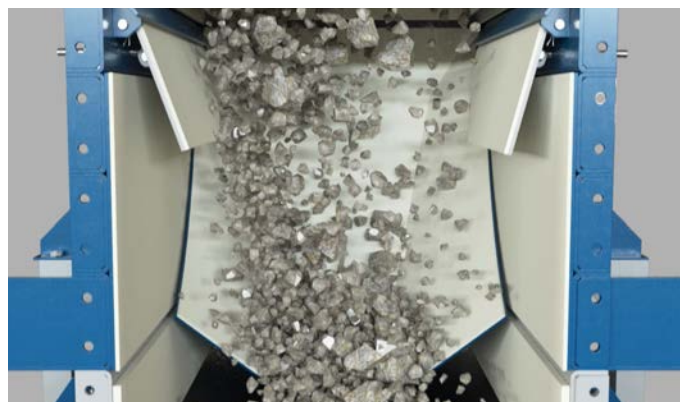
- Adjustable side kicker plates and deflector improves center loading material
- Removable side panels allow for height adjustment based on load chute needs
- Minimizes dust and spillage from load zones
- Compatible with Benetech XN Liner

Several Available Liner Options

- 1/4 on 1/4 Chrome Carbide
- 3/8 on 3/8 Chrome Carbide
- AR 400 Liner
- Others available on request



Off-Center Loading



Center Loading With MaxZone[®] Plus



Load Zone & Containment

Self-Cleaning Conveyor Capsule (SC3™)

The Benetech Self-Cleaning Conveyor Capsule (SC3™) is a revolutionary technology developed by Benetech for Total Dust Management (TDM®). The innovative SC3™ system provides a highly favorable life-cycle cost compared to other enclosed conveyor options through extended belt life, readily available standard components, reduced maintenance frequency, ease of service, reduced risk, and greater personnel safety.

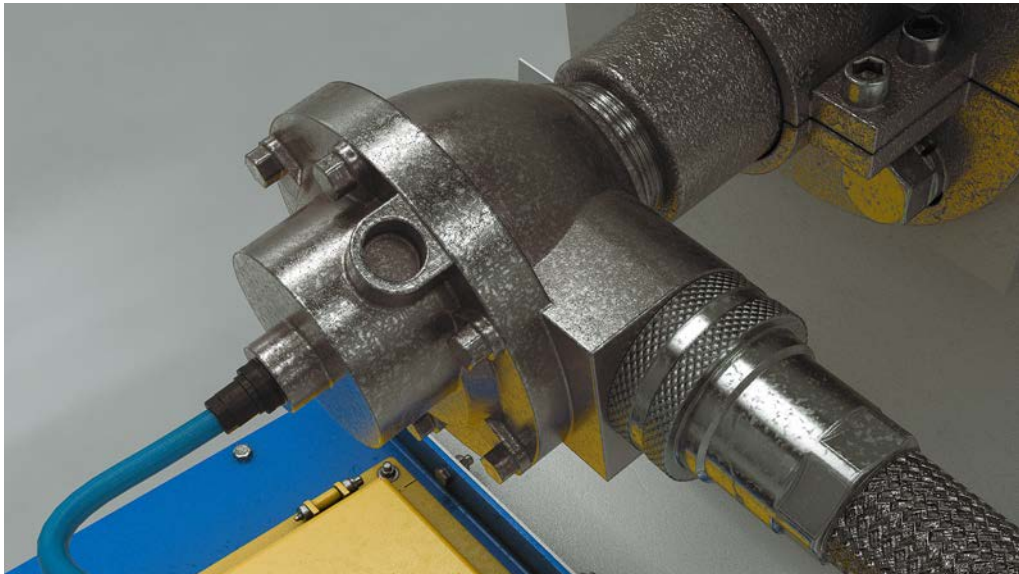
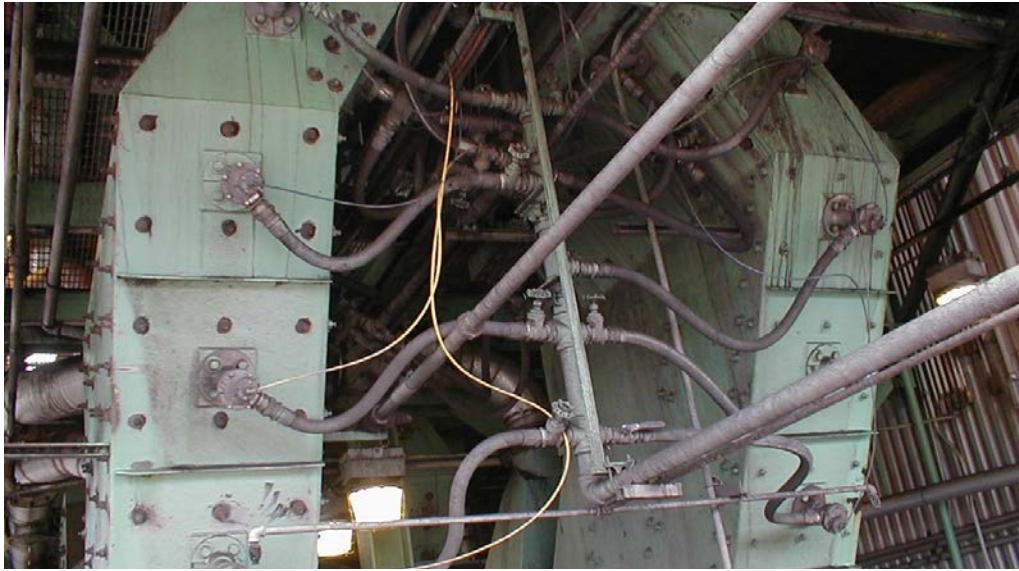
Dust-tight inspection doors are easy to access with lubricated hinges, easy-open handle clamps, and separate handles for opening and closing are employed. Surface coatings are corrosion resistant for long life in extreme conditions. Simple Slide idler frames allow for tight spacing where it is needed for load support and easy access for maintenance. Dust inside the enclosure is washed down with fine spray on a return pan as necessary to remove any particulate accumulation. That material can then be disposed of with normal wastewater disposal flow. No fan or outside air source is required.

Features

- Controls dust and fugitive material
- Material is contained inside the enclosure with no roller-to-pan transitions required
- No internal ledges for the dust to buildup
- The conveyor is fully enclosed on all sides so no dust can escape
- Increases personnel safety
- Exceeds environmental and regulatory compliance guidelines

Benefits

- Reduces housekeeping & maintenance requirements
- Fewer replacement costs
- Extends belt life
- Reduces unscheduled downtime
- Reduces material & production losses



Material Flow & Buildup Prevention

Clean Sweep AC

Pluggage Problem Solver

Specifically designed for bulk material, these automatic nozzle controls remove material accumulation before pluggage can occur. As a result, the buildup is eliminated at impact points before it becomes large enough to break off and cause problems down the line.

How it works

Using standard plant compressed air at 80 to 100 psi, the Clean Sweep AC removes the buildup of wet, frozen, or sticky materials from the walls of chutes, bins, hoppers, silos, and bunkers. Automatically, unsupervised, and without interfering with normal material handling operations, loss of material flow due to pluggage is virtually eliminated where the Clean Sweep AC nozzles are correctly positioned.

The system's electronic controls trigger the Clean Sweep AC nozzles, firing in a predetermined order. Each nozzle is supplied with a precise burst of plant air through a quick open/close air-operated solenoid as compressed air is delivered sequentially to the nozzles.

Each nozzle directs air 360° along the surface of the chute work for a distance of approximately 2-3 feet. It means the Clean Sweep AC does not allow material to crust or layer, dislodging and breaking up any potential accumulations so they can be easily carried away by gravity and flowing material.

Simple to install and easy to maintain

The Clean Sweep AC system's unique design includes a remote air tank and control station conveniently accessible at ground level. This means there is no need to worry about installing large compressed air tanks on chutes, silos, or bunkers. The Clean Sweep AC control system panel and sequence timers can be located in an area convenient to operations, making it easy to meet any changing air pressure and rate of sequencing adjustments needed. Timing sequence and firing rates can be expanded to accommodate various chute configuration changes.

Large compressed air usage is not required

The Clean Sweep AC requires standard 80 to 100 PSIG (15 SCFM, 0.1 sec.) plant compressed air and operates on 120 VAC single-phase power.

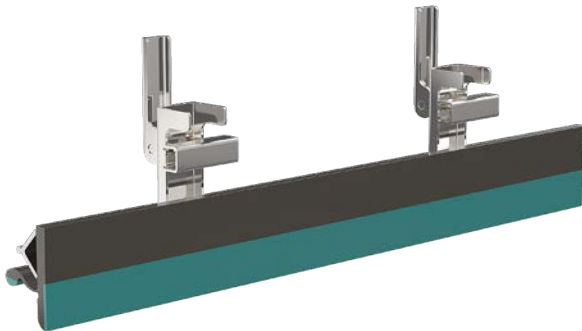
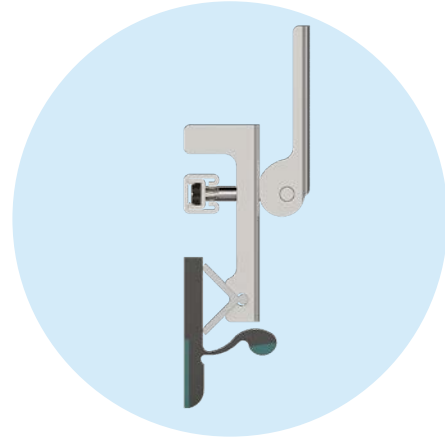
Automatic Cleaning

The radial Clean Sweep AC automatic cleaning system prevents buildup and pluggage of transfer chutes, hoppers, and silos. Easy to install and maintain, the Clean Sweep AC is the trouble-free solution that ensures uninterrupted material flow.

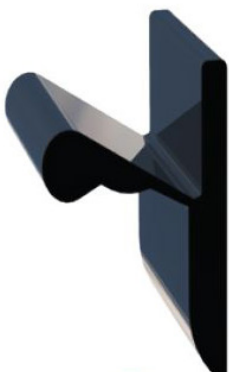
Sealing System & Skirting Seals

Quick Release Clamps

- Simple maintenance without the use of tools
- Skirting adjustments and replacements are quick and easy
- It comes in standard 1m and 4' modules
- Easy four step installation process:
 1. Weld channel strut to skirtboard
 2. Slide clamp through channel strut
 3. Slide on aluminum angle brackets
 4. Twist clamps to tighten, then pull down to lock



Skirting Seals



B Seal

Simple but superior seal.



B-Plus Seal

Polyurethane provides lower friction than rubber which lasts twice as long.



Classic Seal

Economical Seal.



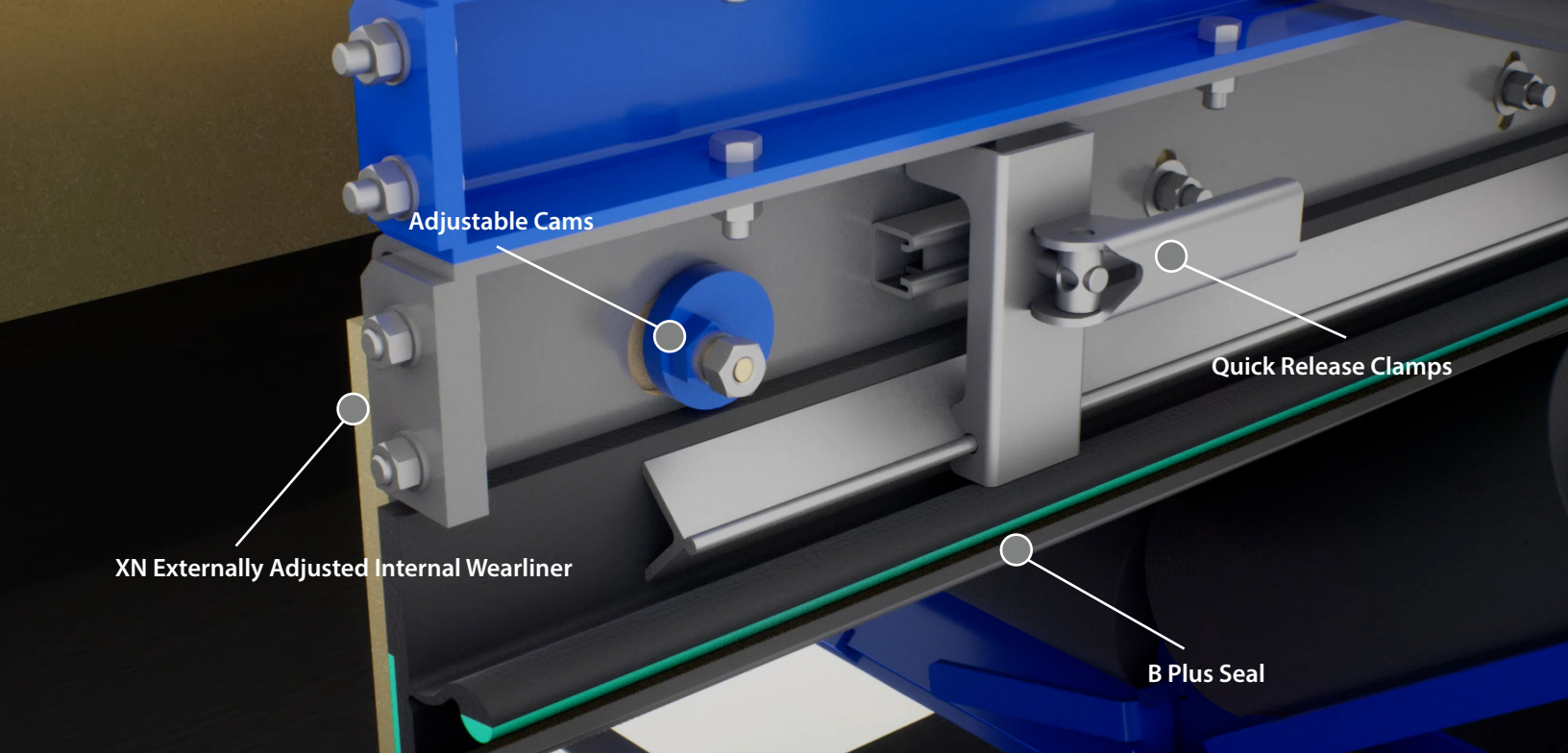
Classic Plus Seal

Exceptional sealing when the distance to belt edge is minimal.



Classic Poly Seal

Polyurethane seal outlasts others such as steel, UHMW, & rubber.



XN Wearliners

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.

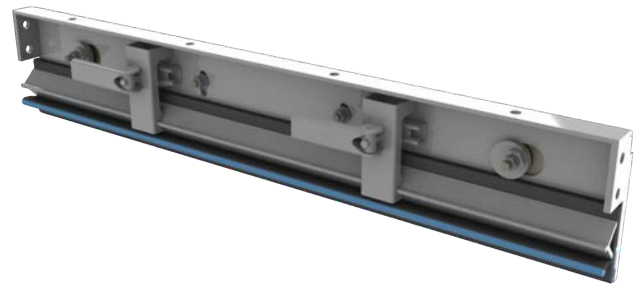
This patented technology gives you instant advantages, including quick, simple wear liner replacements; no confined entry requirements; easily visible adjustment with immediate performance results; reduced early wear and erosion of skirt rubber; extended life of usable steel/chrome; and no more cutting/welding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

Benefits

- Simple and quick wearliner replacements
- No confined entry requirements
- Easy visible adjustment with instant performance improvement
- Reduced early wear and erosion of skirt rubber
- Extended life of usable steel/chrome
- No more cutting/welding of wear liners

Wearliner Material Options

- UHMW
- Stainless
- Ceramic
- Chromium Carbide
- Rubber





Dust Suppression

Cost-Efficient & Effective

- › Increase Health & Safety
- › Environmental Compliance
- › Improved Equipment Performance & Reliability
- › Reduced Housekeeping & Transfer Costs

Dust Suppression

Proven Engineering Technology with Superior Product Performance

Dust is a pervasive problem when dealing with many types of material, interfering with all aspects of your business. Benetech's Dust Suppression Systems provide low maintenance, cost-effective, reliable solution to combat those problems. Benetech's engineering team has been dedicated to designing, fabricating, and installing Dust Suppression Systems. Our approach has resulted in hundreds of satisfied customers who can now achieve year-round dust control. As a result of this experience, Benetech has become the leader in Dust Suppression products and services worldwide at:

- Mines
- Ports and Terminals
- Refineries
- Cement Plants
- Aggregate Operations
- Coal-Fired Power Plants
- Biomass Power Plants
- Pet Coke Power Plants
- Steel Mills
- Coking Facilities

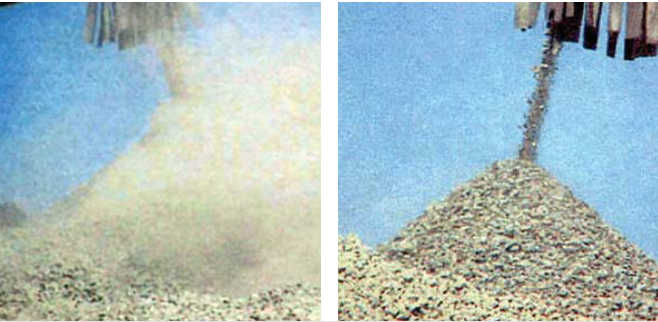
Our system control fugitive dust in all areas of the material handling process:

- Stock Piles
- Transfer Points
- Stackouts
- Haul Roads
- Transloading Hoppers
- Rail and Truck Dumps



Dust Suppression

Untreated VS. Treated



Limestone



Coal



Iron Ore



Biomass



Petroleum Coke & Metallurgical Coke



Taconite

Dust Suppression

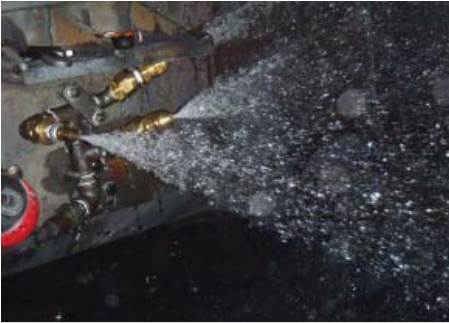
Applications



Ship Unloading Hopper



Truck Unloading Hopper



Underground Mining Spray Block Nozzles



Stackout



Pile Sealer



Bottom Truck Dump Sprays



Conveyor Transfer Point



Railcar Topper



Conveyor Head Box Sprays

Chemical Solutions

100 - Foaming Series

The 100 Series is a low moisture addition foaming/surfactant dust control agent recommended as a foamable wetting agent for strongly hydrophobic materials. This product is recommended for use where low-moisture addition is desired, wetting of the product is sought, and the dust to be controlled is strongly hydrophobic in nature. Typical application points include transfers, crushers, and screening operations to control airborne dust emissions at the transfer, along the conveyor run, and at the material processing location.

BT-105F

Location

- Crushers
- Feeders
- Conveyor Transfers

Treated Material

- Lignite
- PRB
- Biomass
- Limestone
- Ash
- Most moisture sensitive materials



200 - Wetter Series

The 200 Series is a concentrated surfactant blend used as a wetting agent to reduce dust levels occurring above and below ground in the mining, transportation, and processing materials. A single dose is effective through multiple transfer points in material handling systems.

BT-205W & BT-210W

Location

- RCD
- Bottom Dump
- Open Hopper
- BT-205W Short Term (1 Transfer)
- BT-210W Mid Term (6 Transfers)

Treated Material

- PRB
- Lignite
- Gravel
- Wood Chips
- Scrap Metal Recycling
- Taconite
- Biomass
- Petroleum & Metallurgical Coke
- Iron Ore
- Clinker
- Any other material



Chemical Solutions

400/600 - Residual Series

The 400/600 Residual Series provides excellent, long-term dust control for storage piles. A single dose is effective through multiple transfer points in material handling systems. A cost-effective dust treatment chemical that controls airborne dust generated during the conveying process and minimizes fugitive dust problems associated with material stackout, stockpiles, and material moving equipment.

BT-425

Location

- Long Term (to Pile)

Treated Material

- PRB
- Lignite
- Gravel
- Wood Chips
- Scrap Metal
- Recycling
- Taconite
- Biomass
- Petroleum & Metallurgical Coke
- Iron Ore
- Any other material



BT-668

BT-668 is a cost-effective dust treatment product that controls airborne dust generated during the conveying process and minimizes fugitive dust problems associated with stackout, stockpiles, and material moving equipment.

Location

- Long Term (to Pile)

Treated Material

- PRB
- Lignite
- Gravel
- Wood Chips
- Scrap Metal
- Recycling
- Taconite
- Biomass
- Petroleum & Metallurgical Coke
- Iron Ore
- Any other material



Chemical Solutions

Pile & Road Haul Sealer

Provides excellent pile sealing, haul road shoulder, dust control characteristics. Controls windblown dust generated from piles, haul roads, and ash waste piles.

BT-PSC

BT-PSC provides excellent pile sealing, haul road shoulder, dust control characteristics.

Location

- Stockpile

Treated Material

- Any material stored in piles for lengths of time
- Coal
- Coke
- Limestone
- Biomass
- Ash
- Construction Sites

Dust Tarbt

A cost effective dust treatment to control fugitive dust and erosion problems from stock piles, haul roads, and ash waste piles.

Location

- Stockpile
- Haul Sealer

Benefits

- Dust elimination
- Protects against rain and wind erosion
- Ecologically safe
- Will not pollute underground water supply
- Mixes and cleans easily; customers may utilize own equipment for application
- Excellent penetration characteristics for a thick, resilient, elastomeric film that creates a non-cracking crust.

Treated Material

- Storage stockpiles
- Haul road dust
- Construction sites



Chemical Solutions

Belt De-Icers

Belt De-Icers are a cold weather solution.

- Non-corrosive
- It does not affect the properties of material
- It does not alter fusion temperature of material

BT-915 and BT-930 minimize rail and barge unloading problems during winter operations. BT-951 and BT-952 minimize icing, freezing, and material slippage on conveyor belts during low-temperature winter operations.

Each winter season, industries confront unloading and handling frozen coal, coke, and other materials. Freezing in loaded rail cars, bunkers, and conveying equipment can create higher labor and maintenance costs, as well as expensive demurrage. In addition, when frozen, a material with as little as 6% surface moisture can cohere so strongly that special handling is needed to break up the mass.

Benetech's freeze control products use advanced chemistry to modify and weaken ice, so it readily fractures. They also work as dust control agents to hold fugitive dust particles on coal surfaces during off-loading and handling under even severe weather conditions.



BT-915

Melting Agent

- Glycol

Freeze Point

- -28°F

BT-930

Melting Agent

- Acetate

Freeze Point

- -16°F

BT-951

Melting Agent

- Glycerin

Freeze Point

- -30°F

BT-952

Melting Agent

- Chloride

Freeze Point

- -46°F

Chemical Applications

CleanPak

Benetech's CleanPak Application System provides optimum results without expensive and complex equipment. Installation is simple and requires a low initial cost. Ongoing maintenance needs are minimal and can be done in-house or by Benetech professionals.

Design Features

- The system utilizes an existing water system and a single chemical pump to provide a balanced flow of wet surfactant solution to the application points.
- Chemical rates are adjusted based on water hardness, amount of fines in coal and type of application.
- ON-OFF operation for performance test, automated for permanent installation using coal on belt detection and belt running signals.



BenePak

Benetech's Benepak Application System produces proven results in all seasons. Its stainless steel fabricated enclosure protects water and chemical piping along with the support system control panel.

Outstanding Maintenance

Our service sets us apart. Benetech's fully trained field technicians are on call 24/7, providing onsite technical service and ongoing maintenance. In addition, they are fully equipped at all times with the tools and replacement parts needed to keep your systems running properly and to ensure you meet your material handling needs.

Benefits

- Support and Maintenance:
- Equipment Startup & Personnel Training
- Dust Monitoring
- System Performance Analysis
- Annual Management Reports



Chemical Applications

MiniPak

No Electricity Needed. Portable Enclosure.

Benetech is the most experienced chemical suppression solutions provider in North America. With that experience, our in-house engineering team created a portable powerless suppression system. We can provide customers with the most reliable and efficient solutions to their dust issues.

Portable Enclosure

Easy to set up, maneuver, and use, this cost-effective system is ideal for your suppression needs. The MiniPak is a simple one-person, manual operation. This portable suppression system can be used at fixed locations like conveyor belts or moving operations, like construction vehicles, that generate a lot of dust. The MiniPak is a completely self-contained enclosure that requires no electricity to operate and is driven using supplied water pressure.

Features

- No power supply needed
- Portable enclosure
- Easy to install and use
- Non-corrosive, non-toxic, non-flammable
- Harmless to skin
- One-person operation

Benetech Dust Suppression Chemicals

Benetech has a selection of Dust Suppression Chemicals for all types of bulk materials needs. Our cost-effective chemicals are formulated to reduce dust levels with PRB, lignite, gravel, wood chips, scrap metal recycling, taconite, biomass, petroleum, metallurgical coke, iron ore, sinter, clinker, and other materials.

Features

- Requires less equipment at fewer application points
- Cost competitive agent
- Minimizes water addition
- Guaranteed to reduce airborne dust
- Environmentally safe





Washdown Systems

Improves Safety & Efficiency Down The Line

- › Elevate Worker Safety and OSHA
- › Compliance Reduce Coal Dust Fire and Explosion Risk
- › Diminish Housekeeping Costs
- › Increase Equipment Performance and Reliability

Washdown Systems

As an industry best practice and avoiding an OSHA compliance issue, washdown of the material handling area is necessary to remove the final 2-5% of remaining dust as an industry best practice. Each custom Benetech Washdown System minimizes water usage and integrates engineered drainage, curbing, and water shielding. Individual spray heads and nozzle arrangements are selected and placed to clean beam pockets, roof truss, walls, and floors. The entire system is then hydraulically balanced and zoned. Each zone can be manually activated or fully automated through PLC control. Benetech's custom Washdown Systems ensure all dust is removed. Efficient and cost-effective, our systems create cleaner workspaces, improve workplace safety, reduce the risk of fire and explosion, and decrease ongoing housekeeping expenses.

Features

- Custom Design Solutions
- Spray zones controlled manually or fully automated through PLC controls
- Integrated engineered drainage, curbing, and proper water shielding of equipment
- Minimized water usage while maximizing the effectiveness

Benefits

- Increases Plant Safety
- Creates Cleaner Work Spaces
- Reduces Risk of Fire and Explosion
- Substantially lowers housekeeping labor
- Reduces worker injury due to inferior clean-up methods





Plant Services & Assessments

Evaluate, Optimize & Improve

- › Site Survey & Mechanical Assessment
- › Evaluate Operating Systems
- › Optimize Systems
- › Utilize Technologies to Improve Operating Conditions

Plant Services & Assessments

Our Plant Services program is designed to assist customers in keeping critical equipment running effectively and safely while minimizing downtime. Improper maintenance is a leading cause of spillage, material waste, fires, explosions, and unscheduled outages, which significantly impact plants and personnel. At the same time, governmental regulations are demanding more than ever to ensure safe practices are in place to reduce combustible dust and protect employees. The Benetech assessment team offers a comprehensive site and operational assessments to ensure improved productivity and safety. A partnership with Benetech Plant Services Team can be an enormous help.

Utilizing Benetech's field experts for clean-up and maintenance is cost-effective and can mean the difference between governmental compliance and non-compliance. Our professionals are fully trained in installing and maintaining conveyor components and belt cleaning products to ensure your systems run effectively. Benetech's Plant Services Team can help plants operate with minimal dust and spillage creating a safer, more efficient work environment for all. Benetech's Plant Services program is designed to assist customers in maintaining and keeping critical equipment running effectively and safely while minimizing downtime.

As your partner, our complete material handling services include:

- Belt Cleaners
- Conveyor Components
- Belt Support
- Chutes
- Pulleys
- Idlers
- Wear Liners
- Skirtboards
- Belt Trackers
- Dust Suppression
- Dust Collectors
- Safety Systems
- Complete Conveyor Audits
- Air/Dust Seals
- Training/Installation





Engineered Transfer Chutes

Fixing The Problem At The Source

- › Customized Design Solutions
- › Control Fugitive Dust Solutions
- › Improve Material Handling Processes
- › Reduce Operating Costs

Engineered Transfer Chutes

A premium provider of engineered chutes 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 maximize material throughput and ensure meeting of design flow requirements; minimize spillage and airborne dust, and reduce turbulence and high-impact for longer chute liner life reduced degradation of the conveyed material. Additional benefits include optimizing belt life due to reduced loading impact and longer intervals between service and maintenance.

Our advanced transfer chute designs are a key component of our patented IntelliFlo® load chute with the adjustable J-Glide® discharge. IntelliFlo's design actively helps prevent the generation of dust rather than just passively trying to control it. Its distinctive round chute design, or chamfered corners, replaces a traditional chute's square corners, maximizing material flow while dramatically reducing dangerous and costly buildup and spillage.

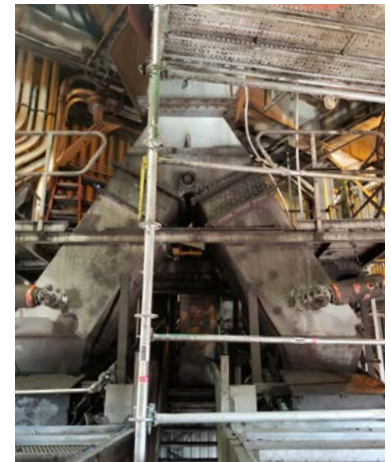
The patented J-Glide® allows for adjustable, vertical loading to accommodate various fuel types and environmental conditions by changing material speed through the transfer. Adjustable horizontal loading likewise works to ensure improved center loading of the belt.

Features

- Less generation of dust
- Multi-load and discharge chutes
- Flop and splitter designs
- Long drop heights
- Low-headroom features
- Customized design solutions
- Smooth center-loading chute

Benefits

- Reduces risk from fugitive dust emissions
- Improves material handling process
- Lowers operating costs
- Controls material flow
- Conserves more energy
- Enhances process efficiency
- Extends production life of belts, chutes, and components



Before



After



Installation

Discrete Element Modeling Flow Analysis - DEM

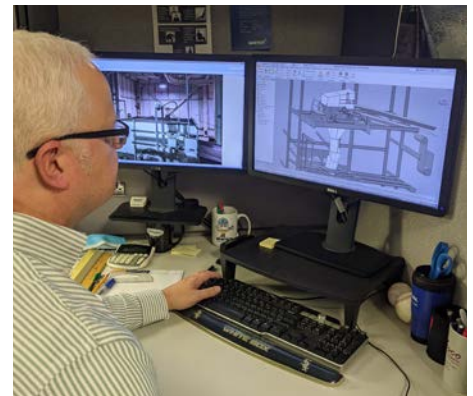
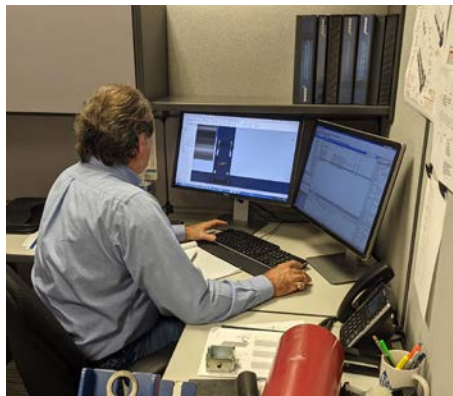
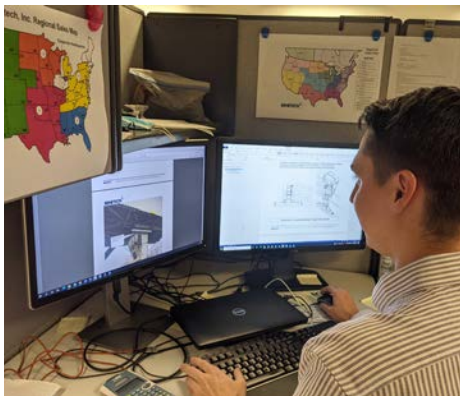
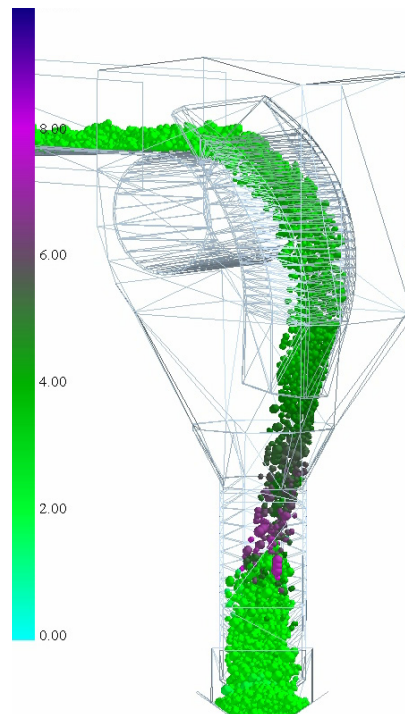
Benetech uses state-of-the-art DEM analysis to evaluate and optimize each transfer point design. This pre-installation computer-modeling process anticipates your plant's potential downstream material flow problems and solves them before expensive mistakes interfere. Benetech's highly trained and experienced chute engineers perform DEM chute designs in-house. All computer modeling 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. Our expert Engineering, Procurement, and Construction team will design, fabricate and install a custom material handling solution to your requirements.

Our turn-key service includes:

- Scope Development
- Conceptual Design
- Engineered Solutions
- Fabrication
- Installation
- Startup Support
- System Inspection & Operation Training

Available tools include:

- Inventor Modeling Software
- DEM
- Material Testing
- Dust Testing
- Performance Testing
- Laser Scanning Surveys



With 550+ successful projects and hundreds of repeat customers, you can be confident that Benetech will deliver the operational improvements and benefits you are looking for.

Digital Scanning

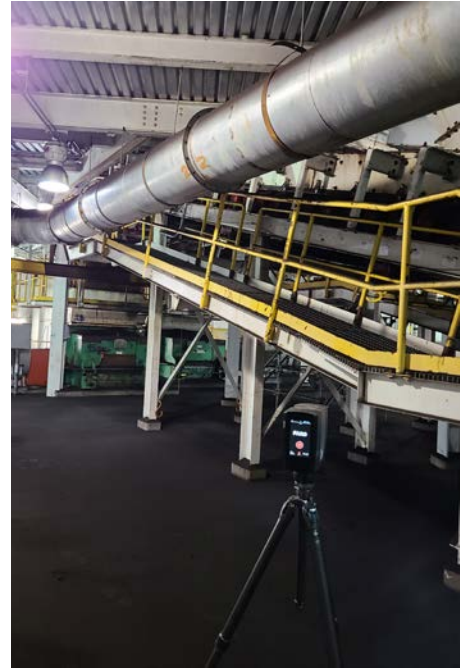
Benetech provides 3D scan services for every phase of construction.

Benetech provides 3D scan services for every phase of construction. Field verification of an existing building with traditional methods is time-consuming and has the potential for inaccuracies. 3D laser scanning quickly and accurately captures the current conditions, and the technology allows for the data to be directly imported.

3D laser scanning proves itself invaluable to the success of today's fast-paced and technically challenging building projects. 3D laser scanning is accurate, from which our engineers create 2D drawings and 3D models for construction planning. It can also compare the newly constructed work against the as-built model or drawings for quality assurance.

Benefits:

- Collects measurements accurately
- Saves time
- Efficient documentation of reality
- Reduces errors
- Improves collaboration
- Imports directly into CAD Model



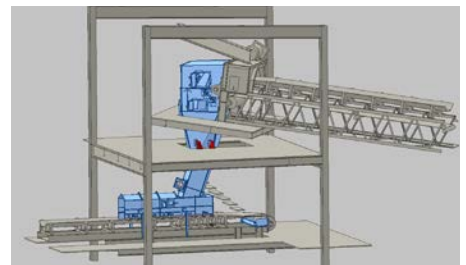
On Site Scanning



Scan With Developed Building



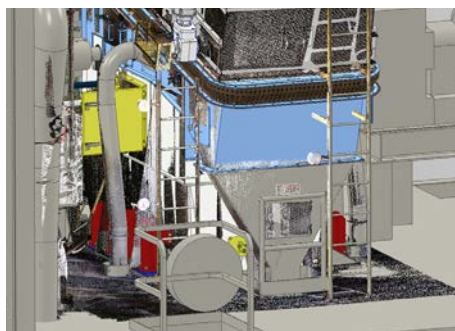
Scan With New Chute



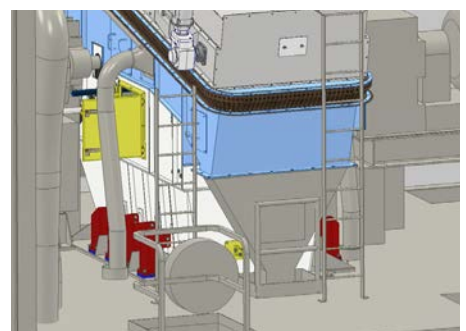
Final Design With Scan Turned Off



Scan With Developed Building



Scan With New Chute



Final Design With Scan Turned Off



Transfer Chutes Before



Transfer Chutes After

Transfer Systems Wearliners

Wearliners

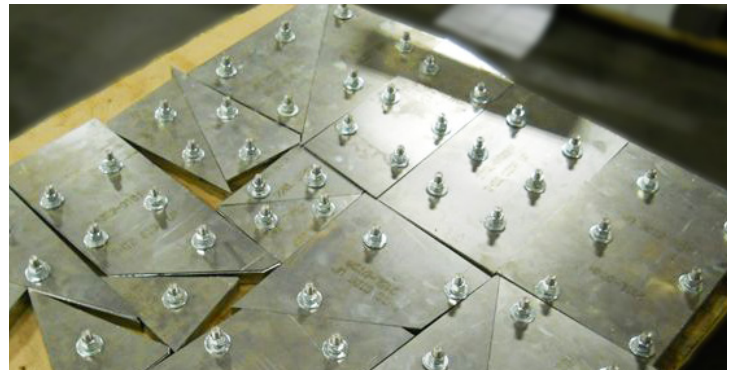
Benetech offers a complete line of wear-resistant materials to handle all of the impact and abrasion challenges of bulk material handlings. Our years of material handling experience and technical expertise ensure that we engineer the right solution for you. In addition, Benetech is committed to helping you improve your material handling process and reduce your operating cost by providing optimal protection and superior wear life.

Materials:

- Ceramic Tile
- Stainless Steel
- Chrome Carbide
- UHMW Tile
- AR-400
- White Iron Castings

Applications:

- Chutes and hopper liners
- Fan housing liners
- Skirt liners
- Bunker liners
- Slider beds
- Screen plates
- Bucket liners
- Flop gate liners
- Fan cheek liners
- Storage bins
- Silo liners
- Wear strips
- Grizzly bars
- Truck bed strips





Dust Collection Systems & Assessments

Filters The Air Without Adverse Effects

- › Compact High-Volume Design
- › Low Capital, Installation & Operating Cost
- › Very High Dust Collection Efficiencies
- › Flexible Engineering Approach to Optimize Design

Dust Collection Systems

Wet Dust Extraction

The Benetech Wet Dust Extraction System provides high-efficiency dust collection with several benefits over traditional dry dust collection units. This advanced technology supports a smaller footprint, lower installation costs relative to fabric filter systems, and simplified maintenance engineered in a flexible custom package. Water is injected at the inlet of the fan impeller, where it is spun with the incoming air and dust to impact with high energy against the fan housing. Then, water, dust, and air pass through the bifurcated housing to the extraction panel, removing water and capturing dust to a discharge sump at the bottom. Offered in multiple sizes for a wide performance range, Benetech's Wet Dust Extraction Systems provides a proven, common-sense solution that eliminates problems inherent to fabric filter collection systems.



Dry Dust Collection

Once the sources are identified, industrial dust collectors can filter the air to be collected without adverse effects.



Rex-Aire LP

- Low-pressure, high-volume, reverse-pulse design
- Maximized safety against fire and explosion
- Minimized confined-entry space requirements
- Designed for PRB coal dust

Rex-Pulse/Vent

- Pulse-jet-cleaning fabric filters
- Dust control for localized needs
- Multiple design capabilities
- Economical solutions

Insertable Dry Dust Collector

- Automatic reverse-jet fabric filter
- Cost-effective solution for centralized dust control
- Suitable for collection of large dust concentrations
- Small footprint and easy installation

Cartridge Dust Collection

- Cartridge media for different material factors
- Space-saving compact designs for confined areas
- Safe, compliant operation with combustible dust
- Easy maintenance from the outside collector



Dust Collection Assessments

Benetech's experience helps improve safety and productivity by conducting a dust collection assessment to get the most out of existing systems. Generating a focused, cost-effective evaluation provides our customers with a detailed mechanical and technical review of their complete dust collection system. Shortcomings of the system are noted, along with recommendations and solutions to get the systems operating their best. In addition, by integrating OSHA and NFPA guidelines, we can comply with current standards.

Benetech will conduct a site survey and mechanical assessment of the current dust collection system. This assessment provides a path to improving dust control while maintaining as much of the current system as possible. The goal of the assessment is to ensure the proper operation of the dust collection system, offering as many improvements as possible within the capabilities of the existing dust collection system.

The assessment will identify velocities in different regions of the dust collection system, from the hoods to the exhaust duct from the fan. Also, it will help identify deficiencies within the existing system and how to address the issues to get the most out of the system. Finally, the findings will be the basis for recommendations within the report. This assessment is a visual, hands-on review of the system. Site personnel will identify any findings of immediate necessary action during the visit. Benetech's EOI Dust Collection Assessment Program (Evaluate, Optimize, Improve) focuses on expert observations and recommendations that provide site personnel a path for improved dust control from existing equipment.

What are the main areas of concern?

- Hoods
- Ductwork
- Fans
- Temperature
- Dampers or Blast Gates
- Duct Air Velocity
- Moisture
- Combustible Dust
- Filter Media
- System Design

Evaluate

The assessment details ensure the dust collection system can operate correctly—review of gauges, filter material/condition, solenoids, fan, ductwork condition, etcetera. In addition, recommendations will identify critical maintenance issues and system airflow balancing.

Optimize

Identify improvements to the collection system to attain proper duct velocities make system adjustments to ensure the dustiest areas are being addressed within the abilities of the existing collector and fan. Optimization includes reviewing hood design, hood placement, ductwork velocities, and eliminating unnecessary/improper duct/hoods.

Improve

Addresses shortcomings in the design of the dust collection system by offering other technologies to assist in keeping the material on the belt. We utilize proven technologies to improve operating conditions, including load zone, skirting design, liners, seals, belt support, belt cleaners, belt tracking, return plows, and engineered access doors.



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