

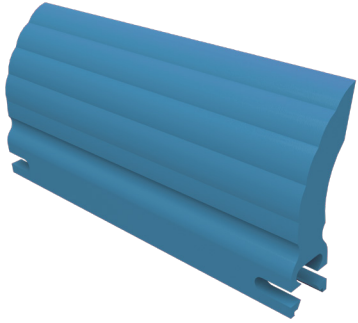
## **Belt Cleaners**

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Dust and spillage  
mitigation solutions  
for your industry.



# Replacement Blades



## Baby Blue

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



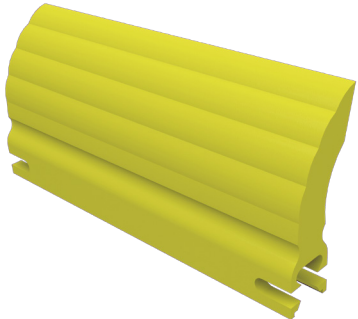
## Navy Blue

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



## High Temperature

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



## Yellow - Economical

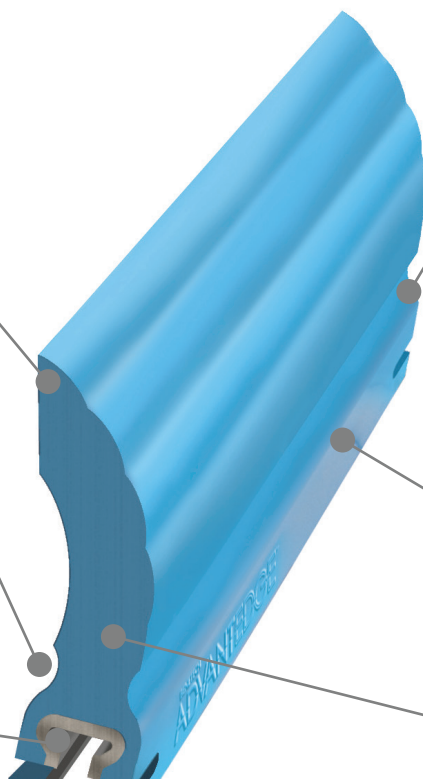
- Material: Aggregate, Rock, Stone, Glass, Wood Chips, Gravel, Sand
- Temperature: -20 to 160F (-30 to 70C)



**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.

# Belt Cleaners

## Primary Cleaner: BEP1

The BEP1 outlasts, out cleans, and outperforms other cleaners in the market. Simple to install and maintain, the BEP1's compact modular design mounts easily in tight chute applications. The conveyor belt scraper blade can be positioned on the head pulley in a range of locations. A unique wave profile allows for a varying attack angle that reduces blade-edge bull-nosing. The conveyor belt scraper blade also can be retrofitted to other cleaner brands.

Optimized for vulcanized belts, the BEP1 conveyor belt scraper provides the cleaning power of a metal blade. It is ideal for material handling applications for coal-fired power plants, steel mills, aggregate, ports, cement plants, sawmills, pulp mills, and mining.

## Secondary Cleaner: BES1

The BES1's blade holder keeps the center of the conveyor belt scraper blade on the belt, making it ideal for cupped or worn belts. The blade ends push down for even pressure across the blade, which also arcs into the center as it wears to maintain blade-to-belt contact. The conveyor belt scraper blade pivots and bends around a central pivot, allowing it to conform to worn, uneven belts.

A one-piece rubber blade with tungsten carbide tips features flaps that ensure carry-back slides away from the blade and doesn't build up. The conveyor belt scraper blade also is available in tri-layer, high-temp, dual-layer, ceramic-bead, and chemical-resistant rubber for superb water removal. With an overall height of just 5", the BES1's low-profile modular design works great in confined-space chutes.

## Secondary Cleaner: BXS5

- High efficiency blades with superior wear resistance available in tungsten carbide or ceramic
- Individual self adjusting blades via torsion element for maintaining blade-to-belt contact
- Double tensioning equipment for better pressure distribution
- Ideal for use on spliced belts allows mechanical splices to pass without any damage
- Superior service life available with self-adjusting pneumatic tensioners or dual rosta tensioners
- Overlapping blades for more efficient scraping



**BEP1 Cleaner**



**BES1 Cleaner**



**BXS5 Cleaner**

# Why Use Benetech Primary Belt Cleaners?

## BEP1

Blade thickness and curvature allow the blade to belt contact to remain at about 1" throughout the blade's life. This minimum blade to belt contact allows better cleaning efficiency throughout the blade life. Competitor's blade to belt contact gets 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 are there to 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 (clips?). Second, because of where these "Flex-Arcs" are located on our blade (base of the 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 a little harder than most blades on the market. More rigid urethane gives you a "slipperier" urethane which will also reduce the friction to the belt when properly tensioned and also give a better cleaning efficiency.

The "wave" profile of the blade keeps a sharp edge on the blade throughout the blade's life. The "cutting" edge stays the same thru the life of the blade 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 competitor's blades. Simple physics shows why dual tensioning should be used on all belt cleaners.

### **Two styles of tensioners available for use on the 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" 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

# Why Use Benetech Secondary Cleaners?

## BES1

The lowest profile of all of our secondary cleaners allows installation in very tight spaces.

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.

Center pin to hold blade onto the shaft, the blade will conform to some irregularities in the belt and also to minor belt “cupping.”

Simple tensioning system, Dual Rosta Arm tensioner, will allow clips to pass thru as long as whatever is on the belt isn’t protruding excessively high. Simple linear tensioning by a threaded rod. Tensioned once for the life of the blade.

## BXS5

- Aggressive heavy duty cleaner
- Several blade options are available
- Blades overlap for cleaning efficiency
- Individual blades mounted on Rosta joints to adapt to worn belts and allow belt clips to pass through
- Simple linear tensioning system



# Specialty Cleaners

## Wash Box™

When your system requires an especially clean belt with virtually no carryback, turn to the Benetech Wash Box™. Equipped with high-pressure nozzles, multiple secondary cleaners, rollers, and heavy-duty inspection doors, the Benetech Wash Box™ is the ultimate belt cleaning technology. The Wash Box™ is mounted on the return side of the belt. When the belt enters the box, rollers stabilize it while being simultaneously sprayed down and cleaned by secondary scrapers. As the belt departs the Wash Box™, the rollers remove the excess water and dry the belt.

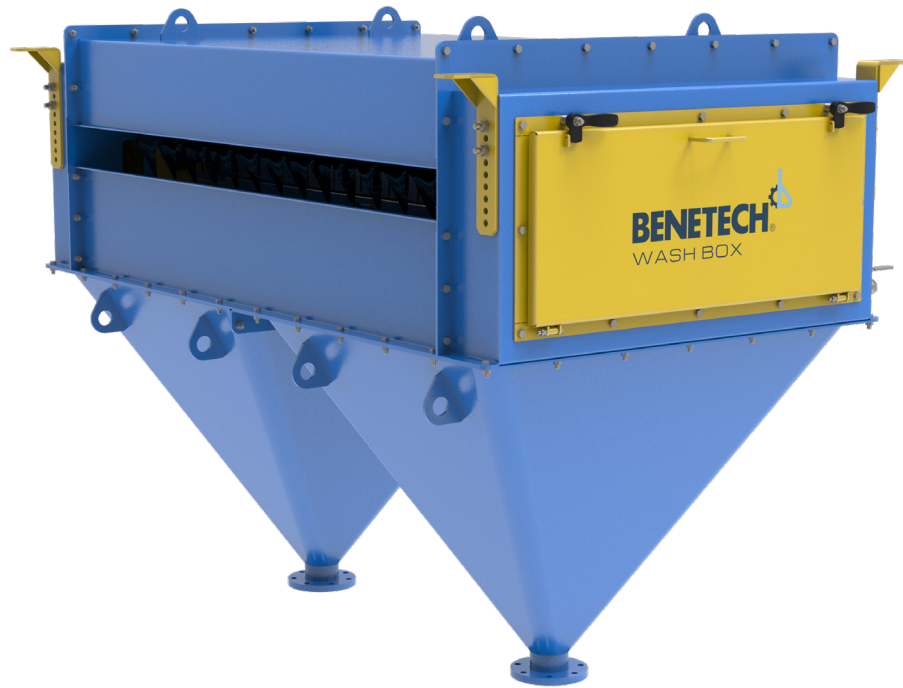
- Spray nozzles moisten the carryback to allow scrapers to remove the residue from the belt more efficiently
- Two sets of Secondary Scrapers to guarantee the most efficient system performance
- Feed distribution system to manifolds equipped with a maintenance valve and filter
- Inspection Doors for easy access to perform preventative maintenance
- Manufactured with stainless steel for long wear-life and minimal maintenance
- Suited for any application or material

## SC3™ Self-Cleaning Conveyor Capsule

The Benetech Self-Cleaning Conveyor Capsule (SC3™) is a revolutionary new 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.

- Controls dust and fugitive material
- Material is contained inside enclosure with no roller-to-pan transitions required
- No internal ledges for dust to build-up
- The conveyor is fully enclosed on all sides so no dust can escape
- Increases personnel safety
- Exceeds environmental and regulatory compliance guidelines
- Cost-saving benefits
- Reduces housekeeping & maintenance requirements

SC3™ Self-Cleaning Conveyor Capsule, U.S. Patent No. 11,136,207, 2021



**Wash Box™**



**SC3™ view panels looking toward head end**



**SC3™ panels access door**

**SC3™**

# Specialty Cleaners

## Brush Cleaner

Grooved, ribbed, and chevron conveyor belts pose unique challenges to efficient belt cleaning and carryback prevention. Designed with these types of belts in mind, Benetech's Motorized Brush Cleaner is an ideal solution to prevent fines and residue from becoming trapped in recessed areas that typical blade-type cleaners cannot reach.

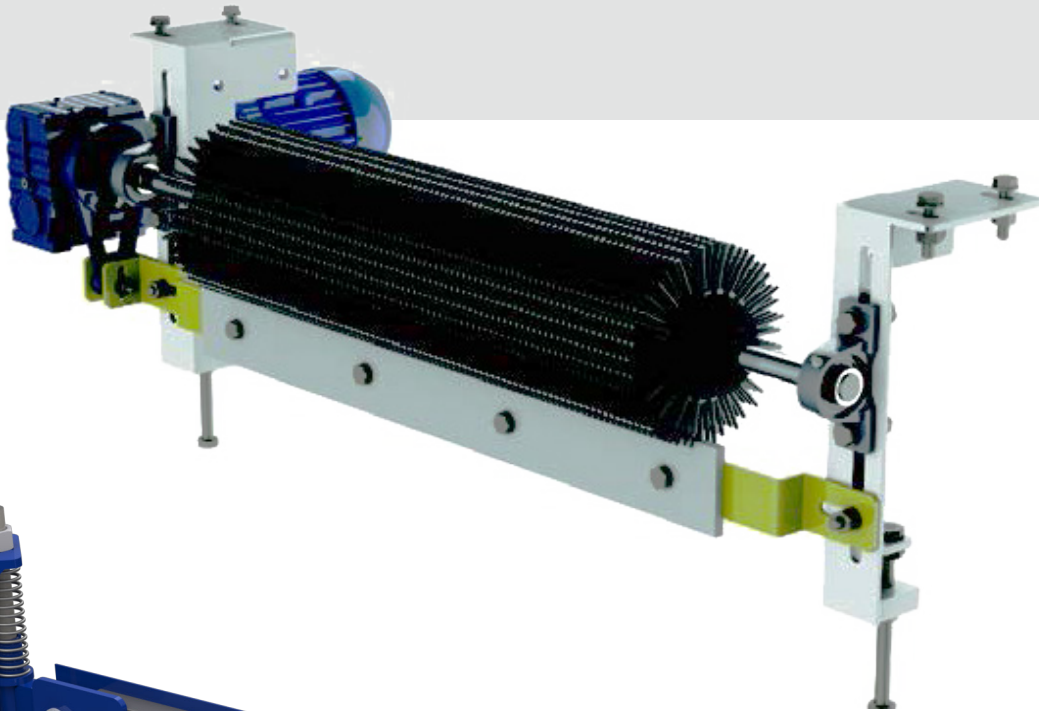
Rotary brush cleaners can be installed anywhere on the conveyor's return side but are typically installed immediately after the belt leaves contact with the drive pulley. This keeps the material removed by the rotary brush cleaner in the dribble chute area of the transfer point chute work, where it can be introduced back into the main flow of material.

## Diagonal Plow

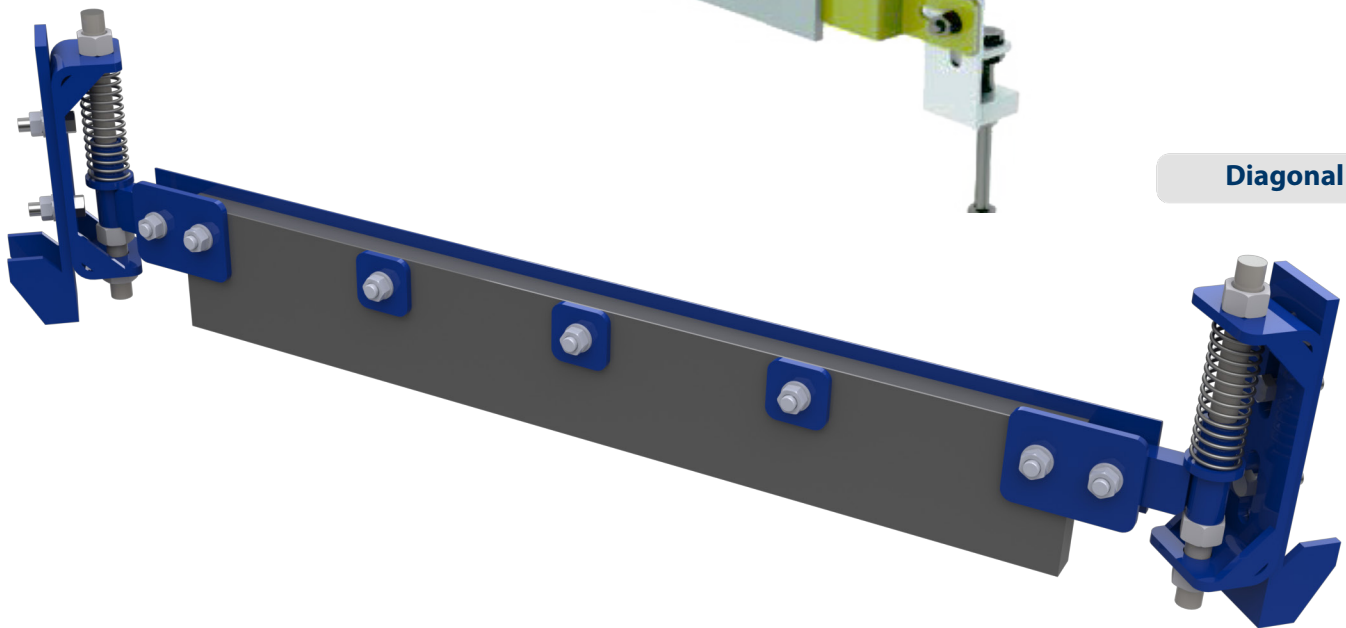
Benetech's Diagonal Plow is an economical way of keeping the tail pulley and bottom cover of the belt free of stray material. This design can be used to discharge fugitive material from either side of the conveyor and is built of a tough steel structure to hold up in even the harshest of conditions.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

## V-Plow

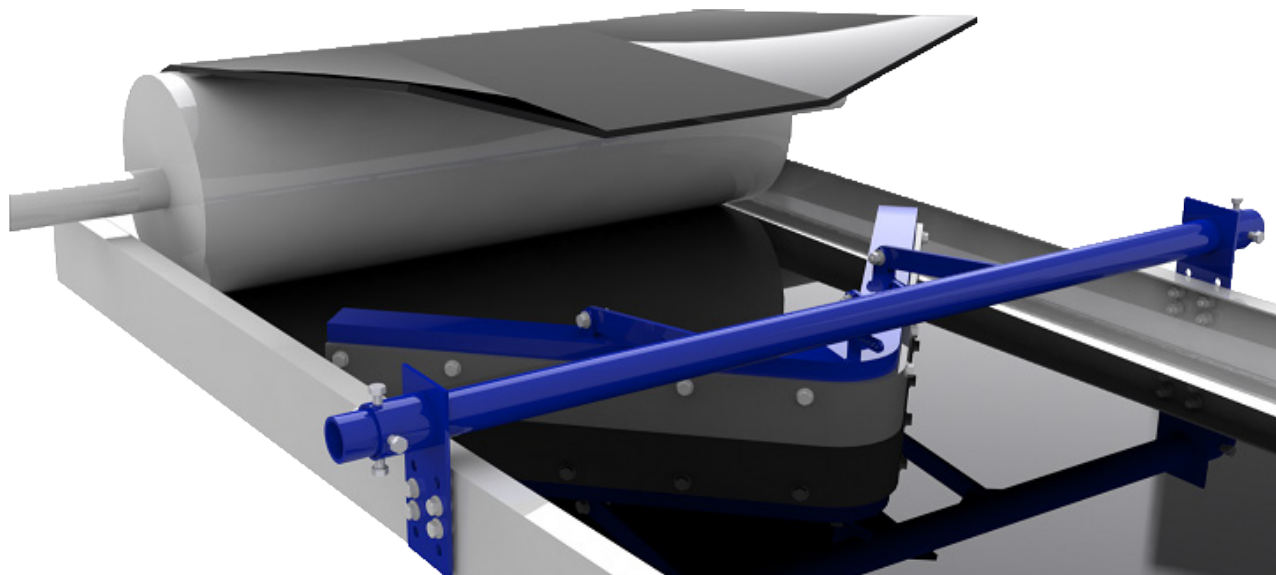
The Benetech V-Plow is a simple and reliable design. Its sturdy "V" frame attaches to the mounting pole at two points, with a third point attached to an adjustment arm. This arm allows the Plow to be height adjusted in small increments to fine tune the installation.



**Brush Cleaner**



**Diagonal Plow**



**V-Plow**

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