

# "CONVEYING CONFIDENCE"

Custom Modification • Fast Delivery • Easy Installation • Superior Support



[www.archenv.com](http://www.archenv.com)

800.553.4567

PRODUCT CATALOG

# A ABOUT ARCH

**Arch Environmental Equipment, Inc.** is a manufacturer and distributor of a wide range of mechanical and electrical products designed to improve the efficiency and safety of conveyor belt systems.

Arch's in-house manufacturing begins with computer-aided design and continues through final assembly and shipping. Our 50,000 square foot facilities include a fabrication shop, machine shop with CNC equipment, and state of the art urethane production.

This allows us to meet the quality standard that our customers demand. Arch's approach to meeting the customers' needs is to evaluate both the short and long term problems and concerns of our customers.

Worldwide sales are provided through an established network of representatives and distributors.



## MANUFACTURED PRODUCTS & SERVICES



### MECHANICAL

Belt cleaning systems, sealing systems, belt alignment devices, belt support and impact systems, chute liners and access doors



### ELECTRICAL

Belt scales, pull cord switches, pre-start alarms, conveyor management systems, metal detectors, speed monitoring, rip and tear detectors

## PRIMARY MARKETS SERVED

Aggregate, Cement, Coal, Food, Foundry, Mining, Power, Primary Metals, Pulp and Paper

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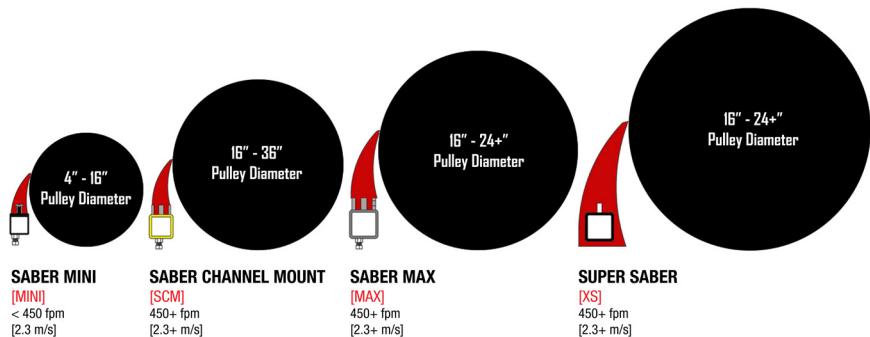


# PRIMARY BELT CLEANERS

## Diagnosing What You Need

There are 3 things to consider when purchasing a belt cleaner...

1. What is your pulley diameter and belt speed?
2. What is the belt width?
3. What are conditions like and what material is being conveyed?



## Tensioners

- Tensioners are the strength or weakness of any belt cleaner. If you can't consistently maintain tension, you can't keep material from passing under the blade tip.
- Arch Twister Tensioners provide continuous tension with no constant adjustment necessary.
- There are no springs, threads, or gears to bind when covered with conveyed material.
- All Twister Tensioner urethane cores are guaranteed for the life of the cleaner.



## Frames

- While other belt cleaners rely on the strength of one tube Arch cleaners use a double wall system pairing a steel mainframe with adjustable steel support pipes.
- Adjustable pipes allow you to easily install your cleaner and tailor it to fit your application.
- All Arch Belt Cleaners are available with bolt-on or weld-on hubs making installation easy.

## Blades

- Arch Primary Belt Cleaners utilize the proven Saber blade profile. The Saber profile, two converging radii, is the most effective blade profile on the market with the maximum amount of wear material.
- Arch uses proprietary Blade Compounds specifically designed for the material and speed of your specific application.
- Belt Cleaners feature quick change blade pins ensuring maintenance is simple and easy.
- Arch Primaries feature single-piece blades with standard widths available from 18" to 120"

# BLADE OVERVIEW

**Note:** Please contact Arch regarding Blade Compound choice. We want to ensure you get the most optimum performance out of your Arch Belt Cleaner!

## Red Saber® Compound

Arch Standard Red Blades are used on a majority of applications with great all around properties for everyday use.

**Temperature range:** 180F to 220F, (104.4C) | **Typical Applications:** Aggregate, Coal, Wood Products among others

## Gray Saber® Compound

Arch Gray Blades are intended for use on material with over 15% moisture content.

**Temperature range:** 180F to 220F, (104.4C) | **Typical Applications:** Same as Red / including Dredge Applications, Wash Plants, Gypsum

## Ceramic Saber® Compound

Arch Ceramic Blades are cast with ceramic beads imbedded in the urethane. They are typically used in high friction application or speeds greater than 750 ft./min. belt speed. The beads aid in dissipating heat buildup. However due to the hardness of the ceramic, these blades cannot be used with mechanical splices.

**Temperature Range:** Up to 285F (140.5C) | **Typical Applications:** High Speed Belts, Taconite, Iron Ore, Granite

## Hi-Temperature Saber® Compound

Arch Hi-Temp Blades are designed for use on applications above 220F. This blade compound also has excellent chemical resistance in applications such as fertilizers.

**Temperature range:** Constant 285F (140.5C) or intermittently 300F (148.8C) | **Typical Applications:** Asphalt Plants, Petroleum Coke

## White Saber® Compound

Arch White Blades are cast from the same urethane compound as our red blades. White blades are used in applications where color sensitive materials are being conveyed, such as Soap and certain minerals.

**Temperature Range:** Up to 220F (104.5C) | **Typical Applications:** Same as red where color is a concern.

## Food Grade Saber® Compound

Arch Food Grade Blades are manufactured from a urethane compound that is FDA approved. Additionally, the metal blade track, located on the bottom of the blade, is manufactured from stainless steel.

**Temperature range:** Up to 220F (104.5C) | **Typical Applications:** Produce, Candy, Cereals, Tobacco

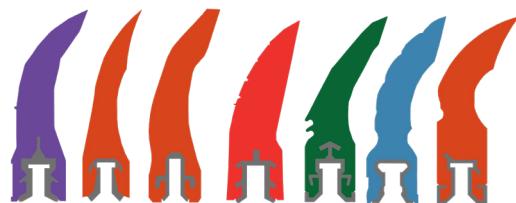
## Black Saber® Compound

Arch Black Blades are made of a specialized urethane compound originally formulated for use in Frac Sand applications. This blade has excellent anti-static properties as well as heat and wear resistance.

**Temperature range:** Constant 285F (140.5C) or intermittently 300F (148.8C) | **Typical Applications:** Frac Sand, Dryers, Granite

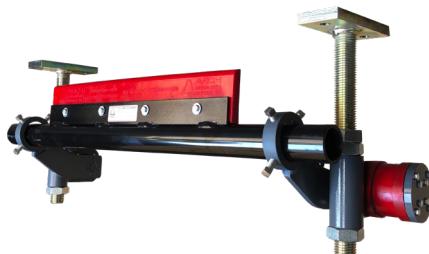
## RetroFit Blades

Sometimes an investment has been made and a full cleaner upgrade isn't an option. Arch offers competitive pricing and high performance RetroFit replacement blades. Made of the same premium urethane, these blades are designed as a direct replacement to your existing cleaner. The proven Arch Saber profile eliminates unnecessary waste commonly found in cosmetic blade shapes ensuring you're cleaning more efficiently. (Available in all Arch Primary Blade Compounds)



# SECONDARY BELT CLEANERS

## RGS Secondary Cleaner



The RGS secondary utilizes a Heavy-duty trailing arm frame supported by 1½ inch spindles. An internal Twister Tensioner maintains the constant pressure of a urethane encased, tungsten carbide blade. This tough combination makes easy work of any residual material missed by a primary cleaner.

**18" to 72" Conveyor Belts, Tungsten Carbide Blade, Splice Tolerant, Heavy Duty Applications**

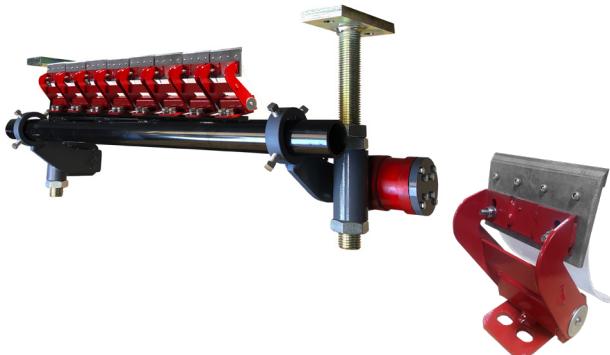
## Saber® GSS Secondary Cleaner



ARCH Saber® Secondary (GSS) cleaners, incorporate the proven Saber® shape into a cantilever style secondary. The patented Twister tensioner applies optimum cleaning pressure to remove carry-back while letting the mechanical splices pass harmlessly, saving the blade, belt, and splice from damage.

**18" to 72" Conveyor Belts, Safe for Mechanical Splices, Non-Segmented Blade**

## RBS Secondary Cleaner



Using metal-bladed technology, the RBS Secondary cleaner eliminates stubborn tack and slime sometimes missed by primary cleaners with a precision-crafted tungsten carbide blade. Delivered pre-assembled to your specifications, this aggressive secondary cleaner is easy to install and handles the toughest conditions at any belt speed.

**18" to 120" Conveyor Belts, Tungsten Carbide Blade, Fixed Lugs Available**

## Saber Roller



The Arch Saber Roller puts a new spin on the conventional "beater roll" used in the industry for years. Using the proven Saber blade profile, this secondary cleaner will scrape the belt clean while providing the same vibratory action needed to remove excess material from the belt.

**Perfect for belts that are cleated, textured, reversible, and/or in general poor condition.**

# SKIRTBOARD SEALING SYSTEMS

## At-Last-A-Seal® Sealing System



At-Last-A-Seal® skirt seal takes a new approach to sealing transfer points; they become a part of the chute wall and float on the belt, allowing the conveyed material to apply sealing pressure without excessive drag and friction. This solution encapsulates the bottom edge of the chute wall and harmlessly rides on the surface of the belt. This lets the seal 'float' and conform to any irregularities and inconsistencies of the belt surface.

**Up to 500 ft., 'Floating Seal', No Splices or Joints, Super Duty Applications**

## Talon Sealing System



The Talon Seal uses a unique design with multiple barriers to contain dust and fines to the belt. This seal leverages the weight of the load to either increase or decrease the seal-to-belt pressure; heavy loads create more pressure, lighter loads less pressure.

**Use With Existing Clamps, Continuous Lengths up to 200', Minimal Friction**

## Cam-A-Lot



Utilizing a cam action, the Cam-A-Lot Clamp System makes quick work of changing skirtboard rubber. 360 degree rotating clamp heads allow for a custom fit in an otherwise unusable space. Simple and easy weld on installation makes the Cam-A-Lot a hassle free solution to load zone sealing.

**Manufactured in 5 foot sections, Will work with most existing seals (recommended to be paired with Arch Talon Seal).**

## Flexiskirt Sealing System



Flexiskirt sealing systems utilize directionally grooved rubber to force fines back into the bulk flow. Recommended for very dry, dusty materials, this design takes advantage of the rubber's natural flexibility to seal the belt by conforming to the belt surface. Able to withstand temperatures of up to 150°F, Flexiskirt seal conforms to the belt's dynamics with minimal friction as it adapts to widening or narrowing gaps between the belt and seal chute wall.

**18" to 120" Conveyor Belts, Safe for Mechanical Splices**

# SECURE YOUR LOAD ZONES

## Simplicity Slider System & Talon Sealing System

The Arch Simplicity Slider System creates a solid foundation for the belt to ride on. Not only does this provide a light impact resistance it also offers a flat surface for the Talon Seal to sit on the belt. This uniform belt position allows for a nice, tight seal! Better yet, the Talon Seal is designed to be used with many existing clamps, eliminating the replacement of more components! This strong pair will have your load zone cleaned up in no time with an easy install!



# BELT SUPPORT SYSTEMS

## Simplicity Impact System



Constructed with more steel than most impact beds, Simplicity Impact Systems provide 75 percent more belt support than conventional impact beds. The impact bars rely on the strength and durability of steel to handle heavy, bulky material, just like the frame. The steel sub-frames in the bars are molded into a shock absorbing rubber and capped with low-friction UHMW, giving your belts a smooth ride out of the loading zone.

**100% Customizable, Steel Construction, Bolt-in-Place installation, Supports Length and Width of load zone**

## Simplicity Slider System



Load zones create problem areas, especially those that are unsupported. Arch's Simplicity Slider System fills in problematic gaps in the load zone. Slider Bar inserts allow the use of existing idler stands or can be replaced with new stands.

**100% Customizable, Steel Construction, Bolt-in-Place installation Supports Length and Width of load zone**

# BELT ALIGNMENT SYSTEMS

## Tri-Return Training Idler



The Tri-Return Training Idler uses a patented convex arrangement of three self-adjusting idler rolls on a center pivot that automatically centers your conveyor belt. The center roll is horizontal and the two outer rolls are mounted at a descending angle. This roll arrangement allows the trainer to fit the full cup of the return conveyor belt.

**Rubber Coated Rolls, Steel Construction, Bolt-in-Place installation, Easily Replaces Current Idlers**

## Wyatt Alignment Disks



Constructed of polyurethane, Wyatt Alignment Disks will not damage your belts, and since they mount to your existing carry or return idler rolls, they are easy to install.

**Corrosion Resistant, For Lightweight Belts, 100% Polyurethane, Easily Mounts to Current Idlers**

# DUST CONTROL SYSTEMS

## Agglomerative Dust Control



The cluster spray heads are equipped with the standard #3 nozzle. The number of nozzles depends upon the spray head required. A filter and ball valve may be added to the spray bar or head. Pumps are equipped with one filter, one ball valve, a pressure regulation valve, and pressure gauge. **Motors are available in 120/240 or 230/460 voltage.**

**Low Water Consumption, No Chemical or Air Injectors**

Every application is different. Arch specializes in custom fogger systems built for your specific needs. Customized fogger systems help you maximize dust control in hoppers, head & tail boxes, chute mid-points, crushers, and transfer points.

# CONVEYOR ACCESSORIES

## V-Plow Angle Plow



V-Plow discharges material off both sides of the belt while the Angle Plow removes it to one side only. These solutions eliminate uneven buildup on the tail pulley that leads to belt misalignment.

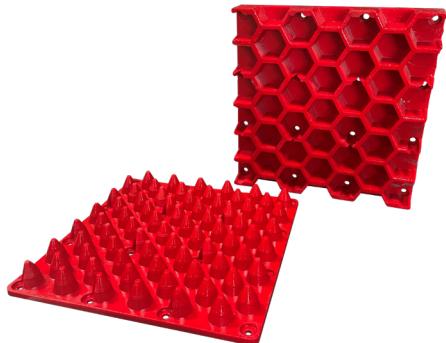
**Standard blades for V-Plow are black rubber and red urethane for Angle Plow**

## Simplicity Access Doors



Simplicity Access Doors are constructed with a polyurethane lid that forms a natural, tight seal. Openings are available in 8" and 12". Corrosion resistant doors are easily bolted or welded to existing structure with optional adaptor plate. These allow easy access to conveyor for inspection without leaking.

## Simplicity Chute Liners



Made of wear-resistant polyurethane, Arch's Simplicity Chute Liners outlast traditional steel liners. Simplicity Chute Liners allow material to build up on itself and provides a protective barrier for chutes and screens. These liners are available in two configurations (Honeycomb or Cone configurations) and feature an easy bolt on installation.

## Simplicity Chute Baffles



Featuring double-layer wear-resistant polyurethane, Simplicity Chute Baffles trap and contain dust particles. The overlapping design provides double the protection against harmful fugitive dust.

**Stop Escaping Dust, Customizable to Your Dimensions.**

# ARCHWEIGH BELT SCALES & INTEGRATORS

## Archweigh SC Belt Scale



The Archweigh SC offers weight accuracies of 1%-2% as it self-adjusts to the movement of the belt, thanks to Arch's patented dual-ended load cells. This unique engineering compensates for outside forces on the belt by forcing converse reactions by the load cells; one is forced up while the other pushes down. (Constant recalibration is never necessary)

**NO assembly required, Bolt-in-Place Installation, Minimum Recalibration**

## Archweigh HP Belt Scale



The Archweigh HP is the only belt scale that accounts for outside forces that affect every conveyor. Arch's patented dual-ended load cells mount directly to the idler, and provide reliable, accurate data (up to +/- 1/2%) every day without recalibration. The dual load cells work opposite each other to neutralize the natural lateral and vertical movements of your conveyor belt. As a force pushes down one end, that same force naturally lifts the other; any movement is cancelled out.

**No assembly required, Bolt-in-Place Installation, Minimum Recalibration**

Archweigh Belt Scales are uniquely designed mechanically and electrically. Arch's patented load cell design eliminates problems associated with weighing material on a moving conveyor belt and results in long term repeatability. In addition, you get a bolt-in-place scale carriage custom built for your application; not an unassembled box of parts.

**Let us prove to you that we provide better service, easier installation, and superior belt scales.**



## Archweigh 1000 and 2000 Scale Integrator



Archweigh Integrators utilize a unique Analog-to-Digital conversion process which allows for the use of an industry standard programmable logic controller (PLC) as a control processor. The exclusive converter internally performs thousands of weight and speed calculations per minute and transmits that high accuracy value to the PLC. The processor then uses those numbers to perform basic rate, weight, and totalizer calculations. A 6" touch screen display guides the user through set-up and calibration, making the Archweigh system extremely user friendly.

**Archweigh 1000 integrators are designed to be used in a single-scale application while the Archweigh 2000 Integrator can manage up to 6 scales.**

# BELT & PERSONAL PROTECTION

## CTS 9000 Infrared Rip Detector



The CTS 9000 IRD is equipped with a push-button that starts a wash cycle without stopping the conveyor. The wash cycle will allow the operator five minutes to clear the lens and the unit will return online automatically. The total unit consists of 3 IP 66 enclosures mounted on a metal bracket facing each other with the sensing beams, an electronic control unit which is mounted on the bracket facing out, and a special metal tray to catch the falling material.

**Auto-Wash Mechanism, For Belts 24" to 96", Minimum Recalibration, High-Impact Housing**

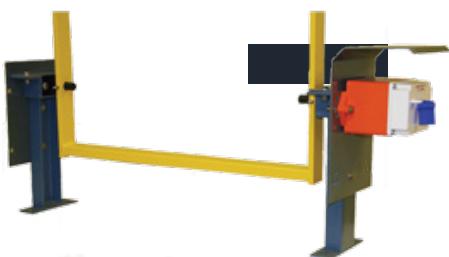
## CTS 700 BTR Rip and Tear Detector



The CTS 700 BTR's two profiled arms connect to a rotary switch equipped with a mechanical delay to prevent trips from incidental contact. (Once activated, the switch must be manually reset)

**For Belt 24" to 96", Detects Side Wing Tears and Center Rips, High-Impact Housing**

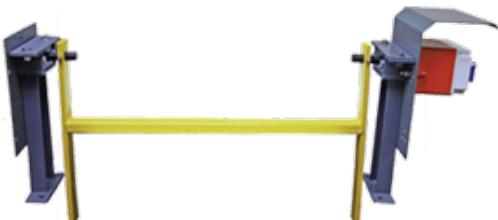
## CTS 700 BL Belt Misalignment Detector



Arch's CTS 700 BL utilizes a mechanical delay to prevent trips from incidental misalignment. The switch features two upright arms connected to a rotary switch that will shut down a conveyor before damage is done. (Once activated, the switch must be manually reset)

**For Belts 24" to 96", Bolt-in-Place Installation, Detects Misalignment in Both Directions**

## CTS 700 RBL Return Belt Misalignment Detector



The CTS 700 RBL uses two downcast arms to detect misalignment of a return belt. Should the belt run off to the right or to the left to the extent that it can cause damage to the belt or the conveyor structure, it will come into contact with one of the downcast arms. These arms are connected to an electrical switch via a glass-reinforced polycarbonate made coupling mechanism.

**For Belts 24" to 96", Bolt-in-Place Installation, Heavy Duty Housing**

# BELT & PERSONAL PROTECTION

## CTS 100 Standard Rotary Switch



The CTS 100 uses an electrical rotary switch, allowing personnel to trip it manually. The electrical switch is a self-wiping rotary switch (not a micro-switch), and consists of two normally open and two normally closed contacts. Once the switch has been tripped, the Orange colored flag is in the "Up" position to alert maintenance personnel. It must then be manually reset in order to restart the conveyor.

**Non-Hazardous Environments Only, Self-Wiping Rotary Switch, Lockable Switch**

## CTS 200L Standard with Trip Light



The CTS 200L uses an electrical rotary switch, allowing personnel to trip it manually. The electrical switch is a self-wiping rotary switch (not a micro switch), and consists of two normally open and two normally closed contacts. Once tripped, the Blue colored flag is in the "Up" position the light is illuminated (making it visible to maintenance personnel). It must then be manually reset in order to restart the conveyor.

**Non-Hazardous Environments Only, Self-Wiping Rotary Switch, Trip Indication, Lockable Switch**

## CTS 300PSW Switch with Pre-Start Alarm



The CTS 300 PSW is a self-wiping rotary switch (not a micro-switch), and consists of two normally open and two normally closed contacts. Once the switch has been tripped, the Blue colored flag is in the "Up" position. The CTS 300 PSW also emits an "Audible" alarm sound before "Start Up" of the conveyor to warn maintenance personnel that the conveyor is about to start.

**Hazardous/Non-Hazardous Environments, Audio/Visual Pre-Start Alarms, Trip Indication LEDs, Lockable Switch**

## CTS 900 AVA Audio/Visual Pre-Start Alarm



The CTS 900 AVA alarm unit is housed in a high impact UV stabilized polycarbonate enclosure rated to IP 65 degrees of protection. The unit consists of: 1 alarm buzzer rated 105 dB and a flashing strobe light.

**Audio AND Visual Alarm, Heavy Duty Housing, Corrosion Proof**

# BELT & PERSONAL PROTECTION

## CTS 600 BCD Blocked Chute Detector



The CTS 600 BCD blocked chute detector is a tilt-type switch, which is mounted inside the chute to monitor any blockage in the material conveyed. Should material start to build up due to a blockage, it will lift the sensing rod, tilting the switch; any tilt to the switch above 15 degrees will cause one of the steel-encapsulated switches to open. This unit provides a relay interface between a tilt-type probe and the conveyor control system.

**Polyurethane Construction, Encapsulated Probe, Adjustable Timer, Corrosion Resistant**

## CTS 700 OSU Belt Off Speed Monitor



The CTS 700 OSU uses a roller mounted underneath the troughing belt to detect belt movement. A pulse sensor is mounted on the roller structure and monitors the pulses in magnetic proximity mode.

**Easy Setup, Zero Speed Monitor Also Available**

## EMT 50 Metal Detector



The EMT 50 has a 5 percent sensitivity level and can be tuned to ignore conductive or magnetic ores, such as magnetite or pyrite (even if they're carried by high-tension steel cord belts with rip detection loops). The EMT 50 will still detect small pieces of tramp metal. Its lightweight construction allows for easy assembly and installation, even as a flat-pack, under-belt style. (Available for nearly any belt width)

## EMT 100 Metal Detector



Equipped with a 10 percent sensitivity level, the EMT 100 can detect both ferrous and non-ferrous metals. It can be used on belts containing metallic repair clips or splices with our optional clip detector. The aperture can be adjusted up to 23.5" to accommodate burden heights up to 19.5." The lightweight, flexible design also allows the detector aperture to be moved in the field. The EMT 100 is available for belt widths up to 48."

**Arch takes pride in providing customization, making sure that when you purchase an Arch product it fits your application with minimal installation time.**

While it would be easier and more profitable to produce “one size fits all” equipment, that is not what we are about. Arch believes that providing total solutions begins with an order and continues through optimum daily performance. Our desire is to solve your conveyor problems in a way that saves your time, headaches, and money.



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