Belt Conveyor Maintenance

TECHNICAL SOLUTIONS FOR BELT CONVEYOR PRODUCTIVITY

Tensioning Light-Duty Belt Cleaner Blades

By now you've recognized the importance of having light-duty cleaners scraping your conveyor belt. Maybe it's frosting you are redirecting into a bin to place back in the process, or maybe you are cleaning the belt to avoid cross-contamination from other products – either way, you are ahead of the game. But making sure those cleaners work correctly is even more important and blade tensioning is key to ensuring your cleaners are doing exactly what you need them to do.

Why is belt cleaner tensioning so important?

Maintaining optimal tension on belt cleaner blades provides more efficient cleaning, while protecting the belt, minimizing carryback, and eliminating potential product cross contamination. Without correct tensioning, the performance of the belt cleaner is seriously compromised, directly affecting conveyor system efficiency and creating sanitation and worker safety challenges.

In short, proper tensioning leads to thorough belt cleaning, which increases system productivity, reduces unscheduled downtime, and improves worker safety. The key word here is "proper" because simply tensioning your belt is not good enough. You want to find the proper balance between over-tensioning and under-tensioning your blades.

Over-tensioning of belt cleaner blades

There are a number of problems associated with over-tensioning a belt cleaner blade, including:

- Over-tensioning of UHMW blades can create progressive belt damage, especially when the belt is running "dry." The belt cover can be easily removed or damage to the belt edge can occur.
- Over-tensioning can cause excessive friction between the blade and the belt, which can lead to resonance; this effect produces bothersome, high-pitched noises.
- When tensioning is too aggressive, the blade can experience an excessive rise in temperature. This heat can easily melt the cleaner blade.
- Over-tensioning does not improve belt cleaning performance and can actually reduce belt cleaner efficiency and adversely affect blade life.

Under-tensioning of belt cleaner blades

Under-tensioning can also result in a number of problems. If the cleaner lacks proper tensioning or maintenance processes are inconsistent, these problems may occur:

- Reduced cleaner efficiency from buildup on the cleaner.
- Excessive carryback, which causes mistracking of the belt.
- Accumulating carryback around the cleaner and other conveyor structural components.
- Material building up on the surface of the belt, making the belt abrasive and increasing blade wear. In extreme cases, blade chipping can occur.
- Top cover wear due to material build up. Worn top covers are harder to keep clean as they develop crevices and grooves.

All these factors increase the need for maintenance and repairs as well as generate added labor cost to clean up around the conveyor.

Optimal tensioning of belt cleaner blades

It may take some time to find the correct tension, but when you find optimal tension, you will know it. Your belt cleaners will be working efficiently and removing carryback, and your blade life will be maximized. You'll also notice that the wear to other components is minimized. The overall sanitation of your belt will be better, and safety hazards from falling materials will be reduced. Depending on what materials you are carrying on the belt, the most important benefit of proper tension could be the reduction in cross contamination and in product quality.



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Light Duty Belt Cleaners From Flexco

All cleaners require maintenance, especially tensioning. Regular observation and tension checks allow you to make the adjustments needed to keep your belt clean, productive, and safe. Choosing a cleaner that makes checking and adjusting the tensioner quick, convenient, and easy helps ensure optimal cleaning.

FGS Food Grade Secondary Cleaner From Flexco

The FGS Food Grade Secondary Cleaner features solid 304 stainless steel components that make it easy to maintain. The FGS cleaner design allows for quick disassembly and reassembly for regular cleaning operations such as washing, foaming, and rinsing. The FGS Cleaner works on any conveyor belt from 12" to 72" (300 mm to 1828 mm). FGS cleaner blades are made of FDA-compliant food grade materials and are available in white or blue, metal detectable blue, and metal detectable dual durometer blue. The FGS cleaner has been designed to be used in industrial baking, confectionary, protein, pet food, and other operations where a secondary cleaner is necessary. All FGS Secondary Cleaners are BISSC Verified and EC 1935/2004 certified.

- Easy to operate, adjust, and tension to minimize blade wear, eliminate belt damage, and maximize blade cleaning efficiency.
- Simple-to-adjust spring tensioning mechanism guarantees maximum cleaning benefits.

FGP Food Grade Precleaner From Flexco

The FGP Food Grade Precleaner from Flexco is easy to install, easy to maintain, and disassembles in a snap for regular cleaning and sanitization. The FGP Precleaner works on any belt from 4" to 60" (100 mm to 1500 mm) and the blade is available in white, blue, metal detectable blue, and dual durometer blue FDA-compliant food grade material. All FGP Precleaners are USDA certified, BISSC Verified, Canada Health Certified, and EC 1935/2004 certified.

- Minimal hardware so installation, tensioning, and blade replacement are easy.
- Easily tensioned to minimize blade wear, eliminate belt damage, and maximize cleanability.











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