ARGONICS
ENGINEERED POLYURETHANE

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CASE STUDY

SNAP-LOC™
DUST SEAL SYSTEM

PRODUCT:	Snap-Loc™ Dust Seal Skirting System
SPECIAL FORMULATION:	Flame-Retardant, Anti-Static (RU 83 FRAS)
PRODUCT CATEGORY:	Conveyor Skirting & Transfer
LOCATION:	Gladstone, Queensland, Australia
CONVEYED MATERIALS:	Grain
TONS PER HOUR:	400 TPH
INSTALLATION DATE:	September 2013

PROBLEM DESCRIPTION:

The customer is an Australian ASX 100 company founded nearly 100 years ago and they are now recognized as an international leader in food ingredients and agribusiness. Throughout their operations, they focus on safety, sustainability and the environment; aiming to improve productivity and dispose of waste efficiently.

The grain handling industry is a high hazard industry where fires and explosions can occur from grain dust accumulation. Over the last 35 years, there have been over 500 explosions in grain handling facilities globally, which have killed more than 180 people and injured more than 675.

Photos of Snap-Loc installed around the transfer point. The blue polyurethane indicates the Flame Resistant, Anti-Static (FRAS) properties.

Grain dust is highly combustible and can burn or explode if enough becomes airborne or accumulates on a surface and finds an ignition source (such as hot bearings, overheated motors, or misaligned conveyor belt).

The customer was previously using a ½ inch thick FRAS rated rubber (Fire Resistant Anti Static), necessary to comply with OHS regulations to avoid dust explosions. The rubber had developed memory fatigue, and was no longer rigid enough to conform to the belt sag between the idlers. As a result the customer was experiencing a lot of product escaping the skirting which was causing spillage. On average, skirting had to be changed every 2 years.

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SNAP-LOC™ DUST SEAL SYSTEM

RESOLUTION:

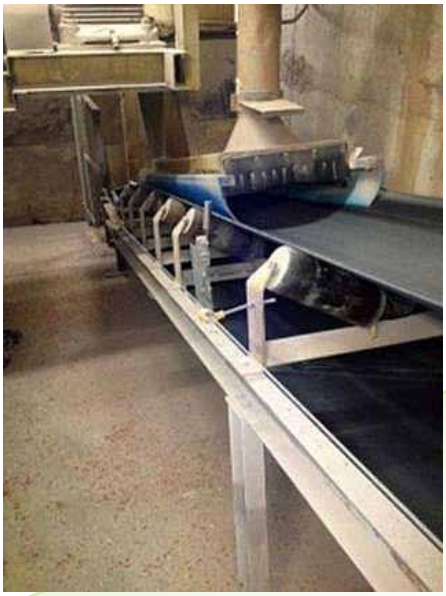
The customer made the decision to install our Snap-Loc Dust Seal System, using it to provide an effective seal at the conveyor transfer points. In comparison to the previously used rubber, the 5 key benefits of changing to the engineered polyurethane have been:

1. Immediate spillage reductions because Snap-Loc's new generation skirting offers longer term memory shaping capabilities;
2. Longer-term replacement cost savings because Snap-Loc Dust Seal is 8 to 10 times more durable than rubber;
3. Immediate and ongoing reduction in maintenance costs because Snap-Loc needs less adjustments due to the memory-set and less cleaning time because it doesn't accumulate dust-build up;
4. Ongoing energy savings due to Snap-Loc's superior low friction properties, achieving less drag on the conveyor; and
5. Ongoing improvements to the preservation of the belt itself because materials don't collect under the slippery surface of Snap-Loc's polyurethane, potentially causing damage to the belt.

Snap-Loc is available in FRAS-rated formulations specifically for industries where combustion risks are present.

SNAP-LOC DUST SEAL KEY FEATURES:

- Field tested with 8 to 10 times the wear life over quality rubber
- 60% less coefficient of friction than rubber
- More energy efficient than rubber
- Non porous so can be used with materials from wet clay to iron ore
- Will not collect fines or other materials that can damage your belt
- Suitable for all belt widths and trough angles



Photos of Snap-Loc installed around the transfer point. The blue polyurethane indicates the Flame Resistant, Anti-Static (FRAS) properties.

Disclaimer: Argonics FRAS polyurethane is not FDA approved. This customer is not in the United States and weighed the benefits of FRAS for safety against not using this formulation.