

ScrapeTec Trading Ltd

## AirScrape: Non-stop clean innovation

With the innovative AirScrape side seal, spills and dust at transfer points in conveyor systems and belt damage are a thing of the past...

In the gypsum industry, contamination of conveyor systems and dust generation during operation are a well-known problem. Conventional side seals at belt transfer points can help, but even friction forces quickly wear them out. This causes them to lose their effect and also damage the belt of the conveyor over the long-term. This, in turn, increases the costs of maintenance and/or replacement.

The AirScrape from ScrapeTec Trading Ltd. is different and represents a rare innovation in that it increases the service life of conveyor belts, permanently saves on cleaning costs and is virtually maintenance-free. Beyond the chute and conveyor belt, the AirScrape ensures high levels of cleanliness.

Wilfried Dünwald, developer and managing partner of ScrapeTec Trading, developed the AirScrape in 2013 due to a specific inquiry from a client. The prototype fulfilled the client's requirements from the very start and is still in use today. In the meantime, customers from Germany, Belgium, Spain and elsewhere are using the innovation to save costs by avoiding spills and the resulting contamination.

### The principle is in the name

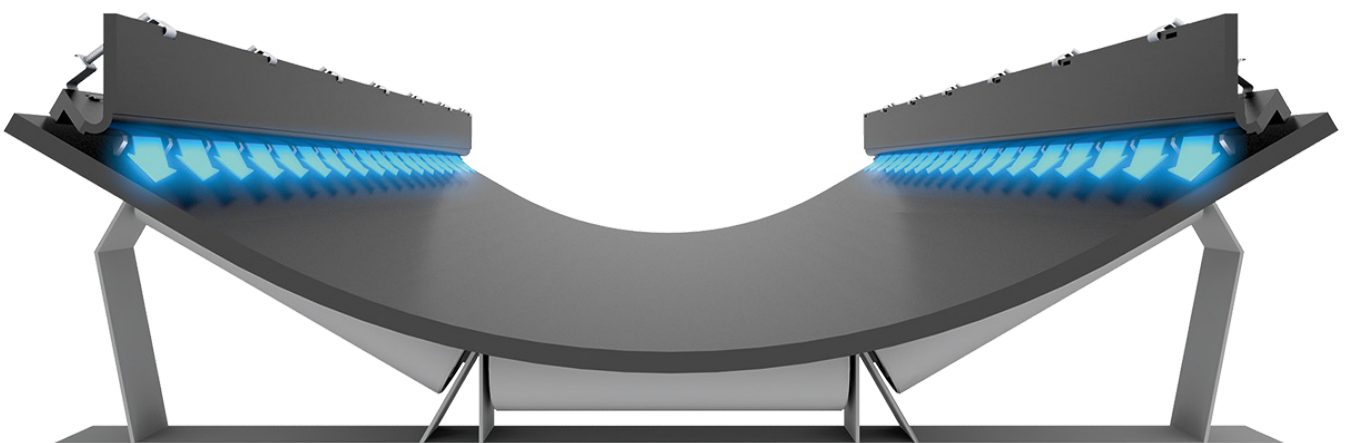
If you see the AirScrape side seal in use, you can quickly see the minimum distance between the individually adjustable sealing lip and the belt. Critical

observers immediately suspect a permeability for material and dust. However, this is exactly where the AirScrape's operating principle, and thus its uniqueness, lie. An intelligent lamella structure on the underside of the 2m-long sealing unit ensures that, thanks to the Venturi concept, a vacuum is created in the conveyor area on the belt. Nothing can escape through the millimeter-thick gap because the negative pressure allows air to flow *in*. This makes the AirScrape the first side seal that works without contact with the belt.

The AirScrape consists mainly of polyurethane, an anti-static and flame-retardant material. Due to its special resistance, the AirScrape is theoretically maintenance-free and can be used permanently, without maintenance. Exceptional mechanical influences caused by the conveyed material can, of course, also affect the AirScrape.

However, in principle the investment is secured by the design. As far as costs of the AirScrape are concerned, these are higher than for conventional side seals. However, considering the total cost of ownership, the system pays for itself very quickly. This is because the protection against soiling of the conveyor systems and wear of the belts will save considerable costs and will also save on resources, such as cleaning personnel. The AirScrape also effortlessly meets the requirements of health and

**Below:** The AirScrape is the first side seal that works without contacting the belt.






**Above:** The AirScrape in operation (left) and on a ScrapeTec exhibition stand (right).

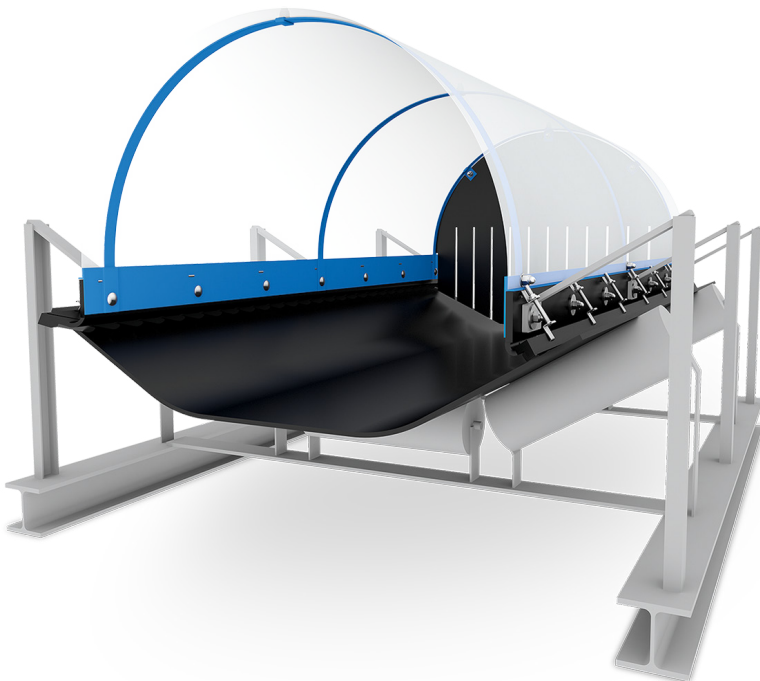
**Below:** The DustScrape can be used in conjunction with the AirScrape.

safety guidelines at work by greatly reducing dust generation and contamination.

In the end, everything that is omitted by using the AirScrape saves costs. There is no contact friction during use, no wear on the AirScrape or belt, no need for maintenance and service, no dust and no spillage, no cleaning and savings in driving energy for the belt.

**Introducing DustScrape**

The AirScrape can be extended with the DustScrape in production areas that have particularly high dust generation. Support arches can easily be mounted to an existing AirScrape installation. A close-meshed, anti-static and resistant plastic fabric is then applied to it, retaining the dust in the belt area. This significantly reduces the risk of deflagration and damage to the respiratory tract. In future, DustScrape will also be available with an alternative stainless-steel mesh, which offers a further safety advantage due to its non-flammability. 



**Below:** The DustScrape is modular, allowing adaptation to different environments and dust levels.

