AiRSCRAPE®

Dust free and contact free Conveyor belt skirting

TECHNICAL DATA SHEET

MEASURES IN MILLIMETERS

The AirScrape conveyor belt skirting system hovers close to contact free on the left and right side of the conveyor belt using the air suction generated by the material movement and the moving belt.

Due to the diagonal array of the AirScrape lamellas which creates an airflow towards the center of the conveyor belt, spillage and dust generation at transfer points and other critical areas in the conveyor chain are significantly reduced.

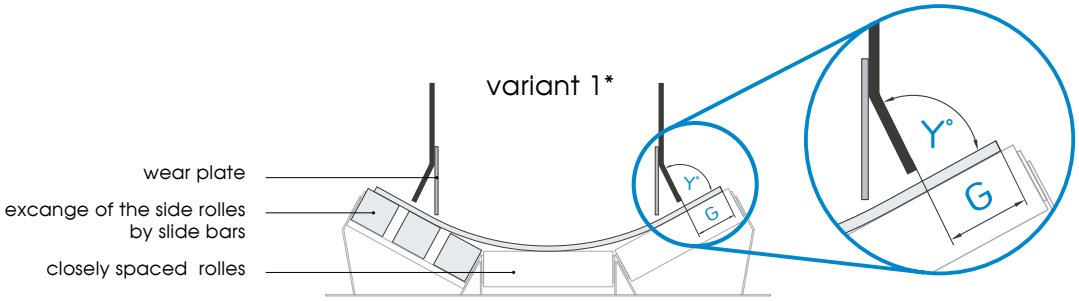
AirScrape – Conveyor belt skirting

- consists of low-wear polyurethane
- Lamellas made from Hardox / Stainless Steel
- consists of a right and a left design (2 m each)
- available in Large, Medium and Small version
- is mounted on the outer underside of the existing chute wall
- maintenance free, based on provision that application is used in accordance with the guidelines
- provides belt protection and close to no belt contact
- can be used for any belt speed
- in FDA approved material available
- can be made of nonflammable and antistatic material (polyurethane)

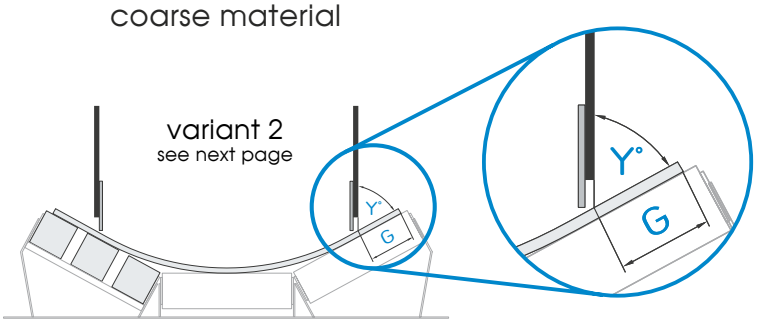
REQUIREMENT FOR THE USE OF AIRSCRAPE

The prerequisite for this is a transfer situation that corresponds to the state of technology. The conveyor belt has to run in the middle and should not sag in the loading area. This can be achieved by using suitable belt guides, more rollers or a transfer table. A partial straightening of the outer belt area by special measures (e. g. replacement of the rollers by sliding bar construction) is also conceivable.

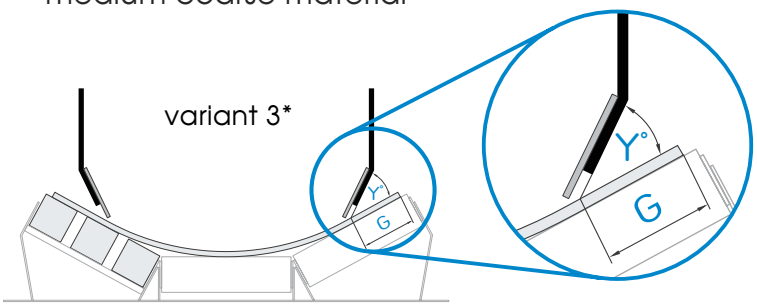
Transfer setting



coarse material



medium coarse material



fine / dusty material

Y° = angle between mounting plate and conveyor belt
*consultation with ScrapeTec Trading GmbH

NOTE
AirScrape is not suitable for:

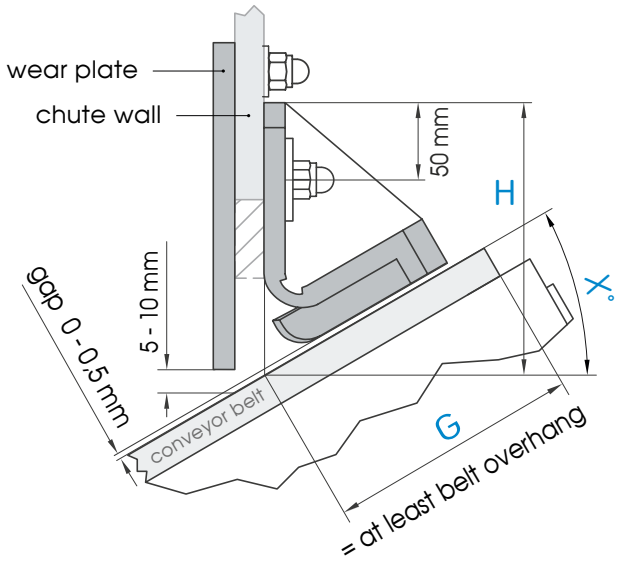
1. reversing belts
2. conveyor belt inclines > 15° depress, please contact us for technical advice
3. transfer situations where the main volumetric flow rate meets the side seal directly (special measures necessary)
4. Materials in the hardening / reaction process (e. g. pozzolanic materials and simultaneous addition of water to combat dust)

ATTENTION
The belt overlay must be permanent.
Belt overhang fluctuations must be taken into account.

AirScrape - LARGE

Hardox
Stainles Steel
Suitable for trough angle (**X°**) from 0° to 45°
Belt overhang: > 100 mm
Free mounting area appx. 140 - 170 mm
Build-in dimensions (mm)

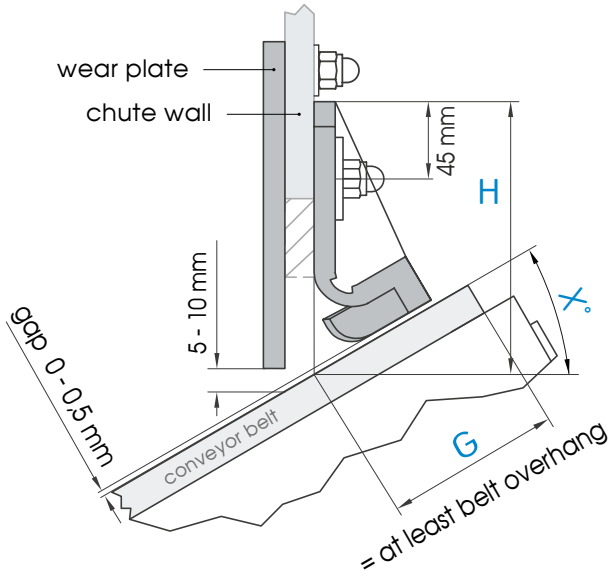
X°	H	G
0°	137	100
10°	139	103
15°	142	106
20°	146	110
25°	150	115
30°	155	121
35°	161	128
40°	167	135
45°	173	143



AirScrape - MEDIUM

Hardox
Stainles Steel
Suitable for trough angle (**X°**) 0° to 45°
Belt overhang: > 80 mm
Free mounting area appx. 120 - 150 mm
Build-in dimensions (mm)

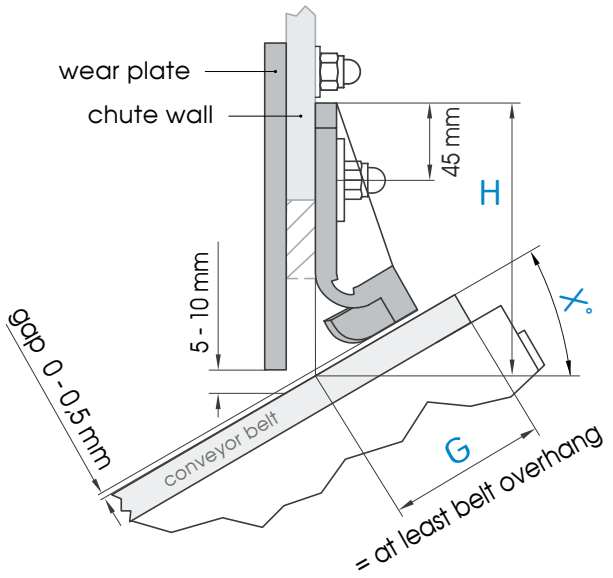
X°	H	G
0°	120	80
10°	121	83
15°	123	86
20°	125	90
25°	129	95
30°	134	101
35°	140	108
40°	147	116
45°	155	125



AirScrape - SMALL

Hardox
Stainles Steel
Suitable for trough angle (**X°**) 0° to 45°
Belt overhang: > 55 mm
Free mounting area appx. 110 - 130 mm
Build-in dimensions (mm)

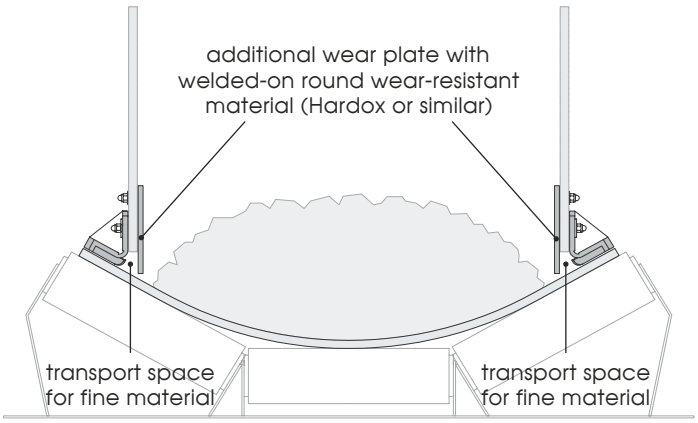
X°	H	G
0°	110	55
10°	112	57
15°	115	60
20°	118	63
25°	121	66
30°	124	70
35°	128	74
40°	133	79
45°	139	85



Ideal Sealing

(example: straight design)
Pre-sealing and AirScrape

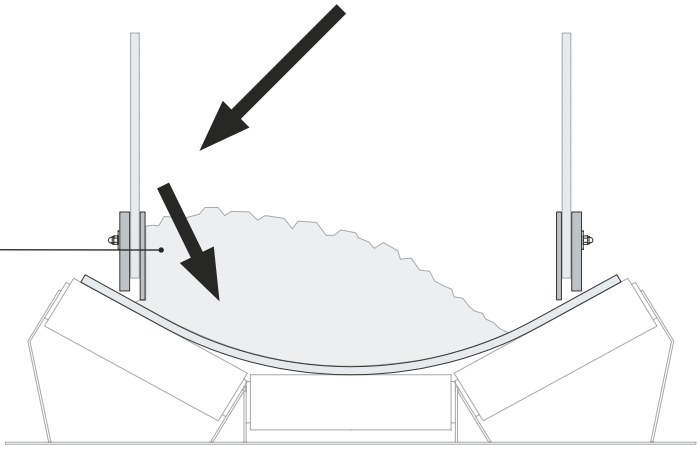
This construction is mounted (starting with reference to direction of flow) with a 5 mm gap to the belt.
In the conveying direction, this gap dimension increases by 5 mm / metre.
Length approx. 1.5 x belt width.



Off-center loading of conveyor belts is responsible for many consequential damages and problems

Material feed off-center:

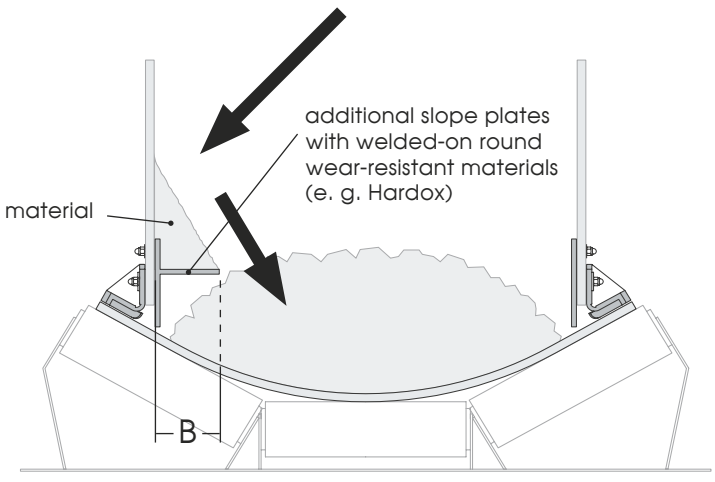
- belt runs in the transfer area and side sealings lose their function,
- the belt misalignment is the result, because the material weight forces the belt into the lowest point of the conveyor belt trough,
- unloading onto the lower belt or belt edge damage can result,
- side sealings wear out quickly with the consequences of spillage and dust leakage,
- …



Improvement of the central loading of conveyor belts by using accumulation plates

(creation of a natural slope)

This construction starts (in terms of the conveying direction) wider and gets smaller in the conveying direction.
Length approx. 1.5 x belt width.
Installation width „B" as a function of volumetric flow rate.

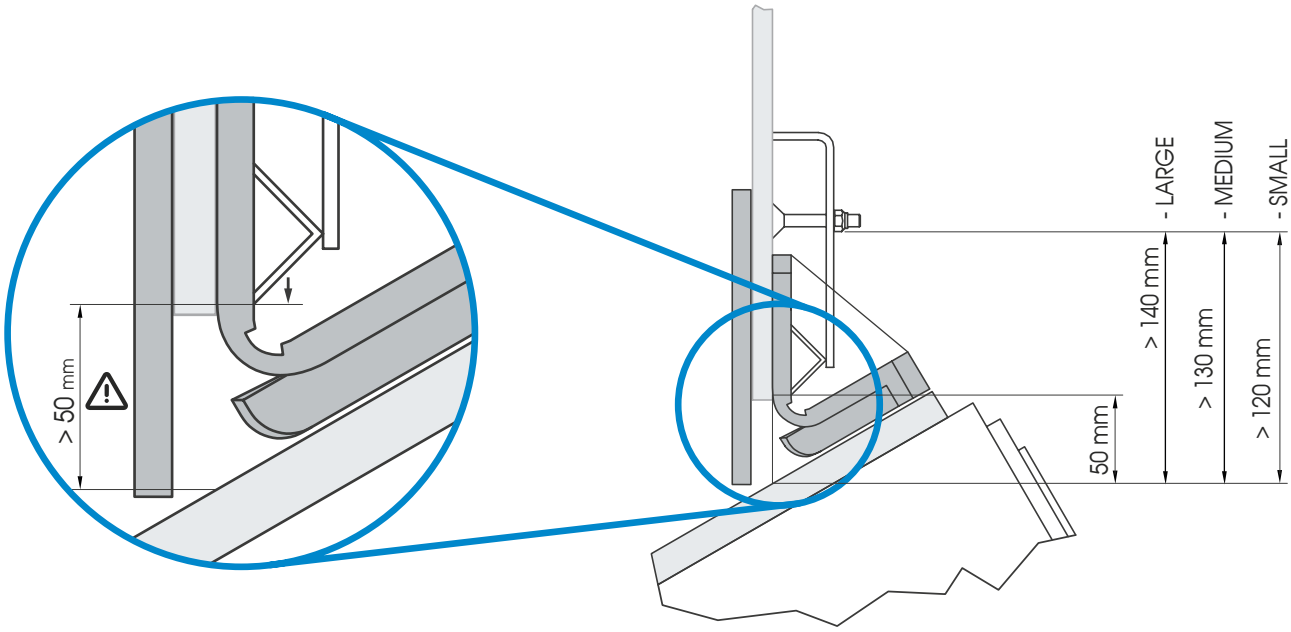


INSTRUCTIONS TO USE EXISTING MOUNTING SYSTEMS

For the installation and use of existing mounting systems notice the following:

The fastening bold (1) or any other attachments / clamping systems needs a distance > 140 mm for AirScrape Large (> 130 mm for AirScrape Medium and > 120 mm for AirScrape Small) towards the belt surface (2).

IMPORTANT
The position of the clamp angle (3) needs a minimum of 50 mm distance towards the belt surface (4) and needs to be above the bending angle of the AirScrape.



AirScrape LARGE
Distance between tensioning bold (1) and belt surface (2) > 140 mm

AirScrape MEDIUM
Distance between tensioning bold (1) and belt surface (2) > 130 mm

AirScrape SMALL
Distance between tensioning bold (1) and belt surface (2) > 120 mm

ADAPTER SHEETS

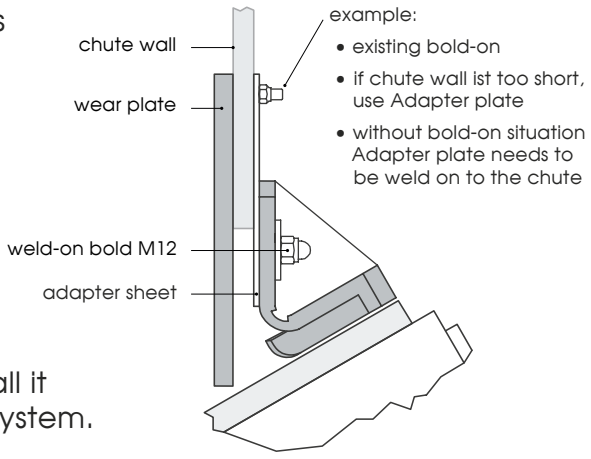
For some applications, special adapter plates / sheets are necessary:

For example

- With a distance from the bottom of the chute wall and the belt surface of:

  > 80 - 110 mm for AirScrape Large
  > 60 - 100 mm for AirScrape Medium
  > 50 - 80 mm for AirScrape Small

- if there is an existing screw-on option on the side wall it should / can be used for direct attachment of the system.



AIRSCRAPE®

TECHNICAL DATA AIRSCRAPE

Carrier material, optional:	Polyurethane	- low-wear - non flammable and antistatic - FDA
Shore:	Shore A 65 ± 5	
Working temperature:	-30° to + 85° C	
Lamella material:	> 360 HB or stainless steel	
System length:	2 m ± 10 mm right and left-hand side	

More detailed information and special specifications are available on request.

OVERALL VIEW