

# HAUG Ionization - for the elimination of electrostatic charges



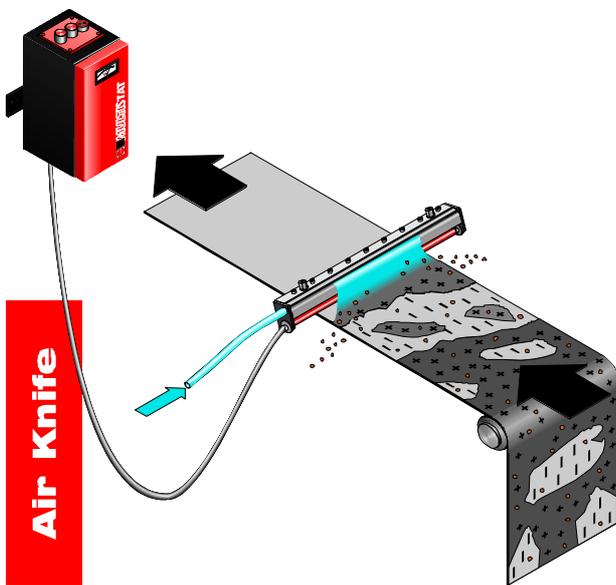
## HAUG ionizing systems

serve to neutralize electrostatic charges. These disruptive charges can be found on various material webs, where they interfere with the production process and attract dust particles as well as other quality-reducing substances.

For more than 45 years HAUG has been researching, developing and producing devices aimed at overcoming this problem. This concerns all industries which are processing materials with poor electrical conductivity.

## The Air Knife

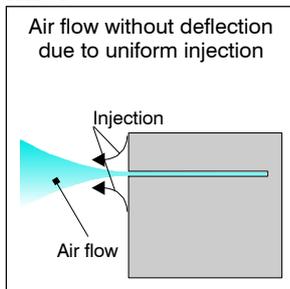
belongs to the group of air gates. As the name already indicates, these are ionizers which are supported by air flows. The effectiveness of the **Air Knife** can be explained by the special design of the air discharge nozzle which creates the so-called "Coanda effect".



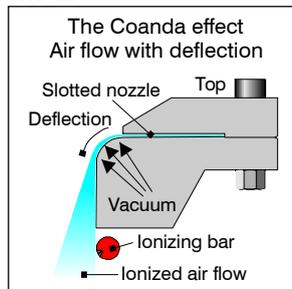
## The Coanda effect

In contrast to full jet nozzles (ill. 1), with the Coanda effect the ionized air comes out of a slotted nozzle producing a flat jet. The special construction of the bottom-side of the **Air Knife** causes an unilateral reduction in injection (air suction from the atmosphere), thus creating negative pressure so that the ionized air is directed to the material web.

ill. 1



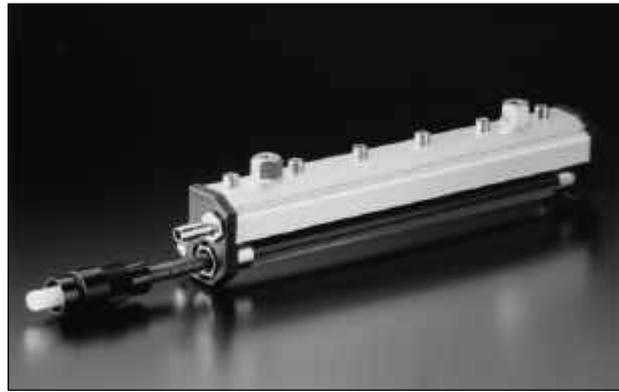
ill. 2



## Special features and advantages

Reducing the injection affords the air blast operated **Air Knife** ionization unit two particularly positive aspects:

- The air discharge speed is increased, resulting in increased effective depth. This in turn permits a greater operating distance of the **Air Knife** to the material web.
- The slot jet has a wider angle of dispersion (ill. 3), which is expanded from 24° to 33°. A larger surface is therefore covered with ionizing, neutralizing air.



AK GK

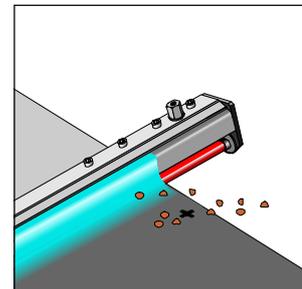
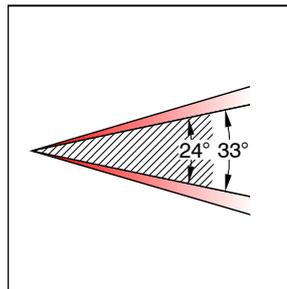
## Applications

- **Plastic processing industry:**  
Film processing, packaging machines, sheet extruders, etc.
- **Textile industry:**  
Weaving and spinning mills, textile finishing, etc.
- **Graphics industry:**  
Screen and pad printing machines, photo and film processing machines, folding machines, etc.
- **Paint shops:**  
Car painting, painting of plastic components, etc.

## HAUG Ionizing Systems

consist of the following components: a power pack which supplies the ionizer by means of a high-voltage transformer with 7 to 8 kV. The various ionizers are connected to the power pack.

ill. 3



## Possible Air Knife configurations

### Air Knife

- + Multistat power pack  
(for all-electronic production monitoring)
- + EI VS ionizing bar  
(specifically for high-speed machines)

or

### Air Knife

- + EN 8 power pack  
(standard)
- + EI RN ionizing bar  
(standard)

## HAUG GmbH & Co. KG

Germany

Friedrich-List-Str. 18  
D-70771 Leinf.-Echterdingen  
Phone: +49 711 / 94 98-0  
Telefax: +49 711 / 94 98-298

[www.haug.de](http://www.haug.de)  
E-mail: [info@haug.de](mailto:info@haug.de)

## HAUG Biel AG

Switzerland

Johann-Renfer-Str. 60  
CH-2500 Biel-Bienne 6  
Phone: +41 32 / 344 96 96  
Telefax: +41 32 / 344 96 97

[www.haug-ionisation.com](http://www.haug-ionisation.com)  
E-mail: [info@haug-biel.ch](mailto:info@haug-biel.ch)

Air Line - Air Knife AK GK




**AK GK**
**Technical data Air Knife**

Type:	<b>AK GK</b>	Order-No: 04.0000.000
		Basic unit for <u>one</u> ionizing bar
Dimensions:	72 x 35 mm	
Lengths:	120 – 3000 mm	
Nozzles:	Slotted nozzle	
Operating temperature:	+5 °C to +50 °C	
Storage/transport temperature:	-15 °C to +60 °C	
Smallest bending radius (cable):	R 50	

Subject to technical changes!

**Accessories**

Air hose		
up to 500 mm total length AK GK	Order-No.: X-6616	
from 501 mm total length AK GK	Order-No.: X-6617	

**A-A**
