

# HAUG Ionization - for the elimination of electrostatic charges



## Power pack EN 70

The EN 70 power pack is a powerful and hard-wearing unit. Its design fulfills all electrical engineering requirements.

The EN 70 power pack is used in fast running machines in combination with tandem ionizing bars. It is equipped with two transformers which operate by 180° out of phase and four high-voltage terminals each. Any surface charges which might disrupt production will be removed reliably and effectively using the ionizing unit – even at high operating speeds.

## Power pack EN 70 LC

The monitoring which is integrated in the secondary area indicates that the corona inception voltage (= beginning of effectiveness of ionization units) is too low by means of a flashing LED.

## Power pack EN 70 RLC

identical to EN 70 LC, but with two additional relay contacts for fault signals.



EN 70 RLC

## Special features and advantages

The HAUG coaxial high-voltage plug-and-socket connection System X-2000 offers a unique benefit. The airtight high-voltage plug can be connected to HAUG power packs without any tools. The highly flexible coaxially shielded safety cable is used to connect the ionizing unit to the voltage supply source.

Due to its round design, the tandem ionizing bars EI RD / EI VD and EI HRD allow a pin-point rotary adjustment to the running direction of the material. The ionizing bars are absolutely safe to touch. Low-wear special electrodes ensure a long service life.

## Functional principle of a tandem ionizing system

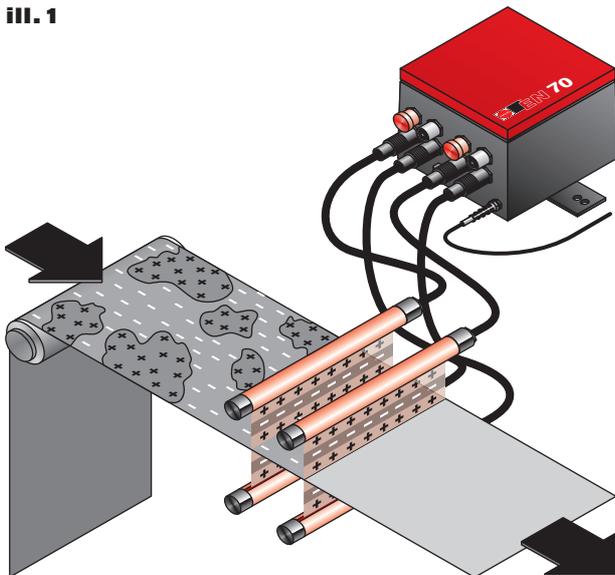
The example given (ill.2) is based on a web speed of  $V = 900 \text{ m/min}$ .

The bars are mounted at a distance of approx. 300 mm and designated  $S_1$  and  $S_2$ . These designations are also indicated on the relevant voltage curves.

The ionization effect is indicated for times  $t_1$  and  $t_2$ .

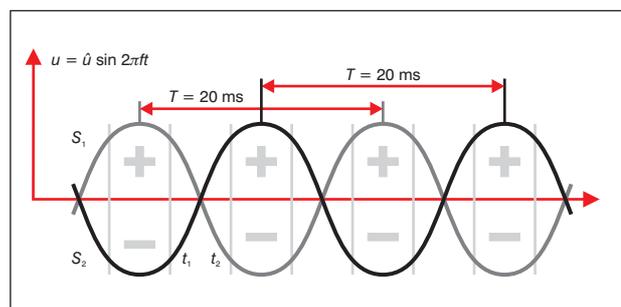
Tandem ionizing bars should be used for machine speeds of  $\geq 150 \text{ m/min}$ .

ill. 1



## Recommendation

The EN 70 / EN 70 LC and EN 70 RLC power packs should be used in combination with tandem ionizing bars mounted above and below the material web (ill. 1).



ill. 2

Voltage curves for the two transformers (by 180° out of phase)

## HAUG GmbH & Co. KG

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

## Germany

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

## HAUG Biel AG

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

## Switzerland

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





**Signalling socket EN 70 RLC**

**Output states EN 70 RLC**

State	Contacts closed	
High voltage ok; Mains voltage ok	1 and 3	5 and 6
High voltage failure ( $HV < 4,2 \text{ kV}_{AC}$ )	1 and 3	4 and 6
Mains voltage failure	1 and 2	5 and 6

**EN 70 / EN 70 LC / EN 70 RLC**

**Technical data**

Types:	<b>EN 70</b>	(115 V)	Order-No.: 01.7700.000
	<b>EN 70</b>	(230 V)	Order-No.: 01.7701.000
	<b>EN 70 LC</b>	(115 V)	Order-No.: 01.7700.100
	<b>EN 70 LC</b>	(230 V)	Order-No.: 01.7701.100
	<b>EN 70 RLC</b>	(115 V)	Order-No.: 01.7700.400
	<b>EN 70 RLC</b>	(230 V)	Order-No.: 01.7701.400

Type of protection:	IP 54
Protection class:	I
Supply voltage:	115 V <sub>AC</sub> / 230 V <sub>AC</sub> (50 – 60 Hz)
Power consumption:	approx. 160 VA
Rated output voltage:	approx. 7 – 8 kV <sub>AC</sub>
Short-circuit output current:	$I_k \leq 5 \text{ mA}$
Load rating of signalling contacts (EN 70 RLC):	24 V <sub>AC</sub> /35 V <sub>DC</sub> , 50 mA max.
Pulse frequency (EN 70 RLC):	1 Hz
HV terminals:	2 x 4
Connectable length:	2 x 18 m max. (ionizing unit incl. HV cable)
Operating temperature:	+5 °C up to +45 °C
Storage/transport temperature:	-15 °C up to +60 °C
Weight:	8.5 kg
Mains cable:	2.6 m; fixed to the device

Subject to technical changes!

**Accessories EN 70 RLC**

Signalling cable K1 for pulsing, shielded		
5 m	incl. round plug	Order-No.: 06.8941.000
10 m	incl. round plug	Order-No.: 06.8941.001
20 m	incl. round plug	Order-No.: 06.8941.002
Round plug		Order-No.: X-0616
Angled plug		Order-No.: X-5718

