

HAUG Ionization - for the elimination of electrostatic charges



Fixation of labels in injection moulds

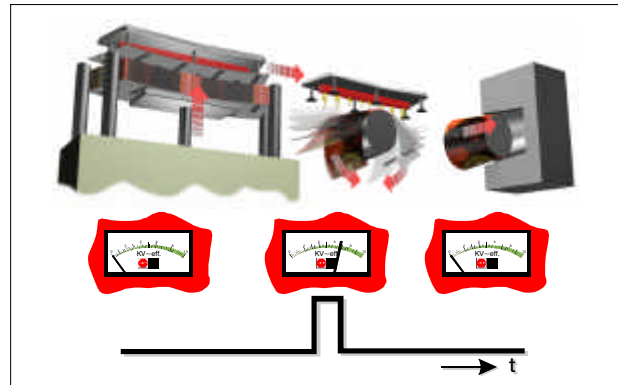
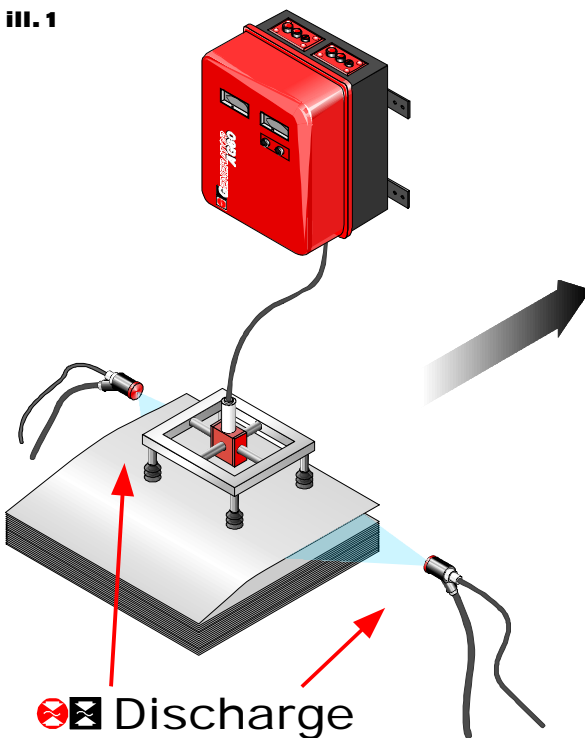
For more than four decades, one of the primary objectives of HAUG GmbH & Co. KG has been the search for ecological production processes and technologies to improve the recyclability of products.

In the field of **In Mould Labelling**, in particular, new applications have been developed resulting in significant time and cost savings for the manufacturer and providing an end product for the end user containing a single grade of material.

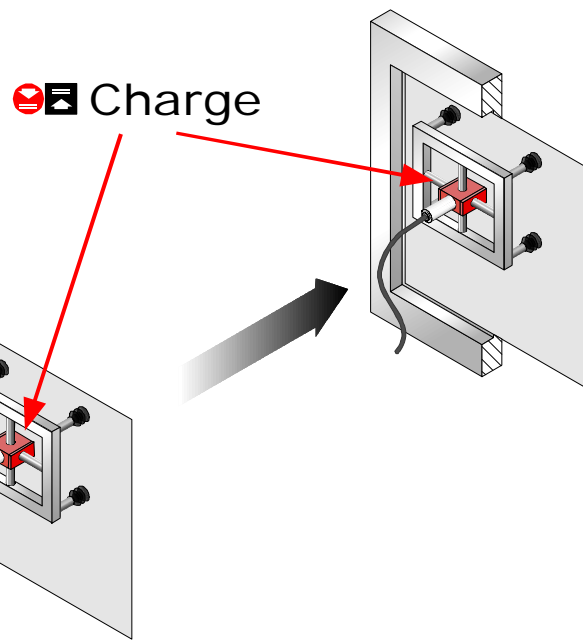
Using the charging system consisting of a charging generator and a charging electrode selected for the specific application allows the label to be fixed in the grounded injection mould by applying charge carriers. The charging generator AG 60, for example, which can be pulsed externally and is provided with a discharge unit and includes an additional integrated, fully electronic process monitoring system, allows the highest level of process reliability to be attained.

In addition, the utilization of the cycle times of the injection moulding machine can be markedly improved by using a handling system. This system positions labels perfectly in the injection mould and removes the finished products in a single process.

iii. 1



iii.2



The direct application of a label in the injection mould offers the following **benefits**:

- Optimum connection of the label with the product
- Only one material unit, which can be fully recycled
- High abrasion resistance
- No elaborate mechanical holding devices necessary within the injection mould
- Label does not become detached during further processing
- No downstream production processes required for the application of the label
- Optimum utilization of cycle times
- Ultimate process reliability with optimum quality
- High quality appearance of end product

Typical applications for **In Mould Labelling** primarily exist in injection moulding, e.g. in food packaging (for the application of product labels) or in plastic containers of all types. During fixation of the label in the injection mould, the dielectric properties of the plastic are exploited in order to apply a defined charge to the label. This charge will allow it to be fixed in the grounded injection mould.

Normally, a combined discharging and charging system is used:

When the top label is separated from a stack, electric charges are generated which are removed using the discharging system. The electric neutrality of the label is a condition for the subsequent charging process.

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