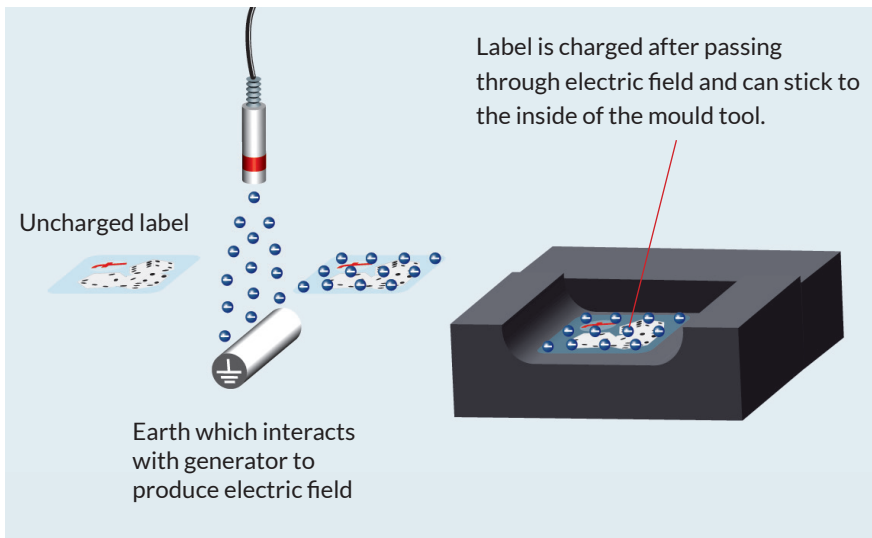


SOLUTIONS TO STATIC PROBLEMS

GENERATORS IN-MOULD LABELLING

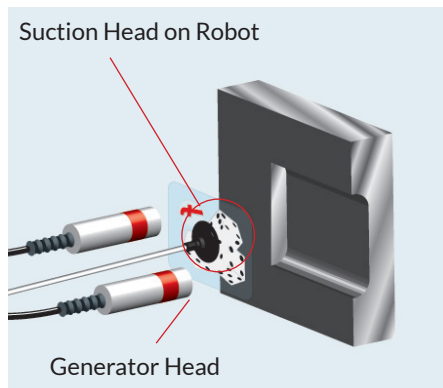
If the synthetic label is statically charged it has the ability to adhere to the inside of the tool so that it can be incorporated into the moulding.

For low volume applications the charge can be applied by hand. For automatic systems there are two ways of charging the label:

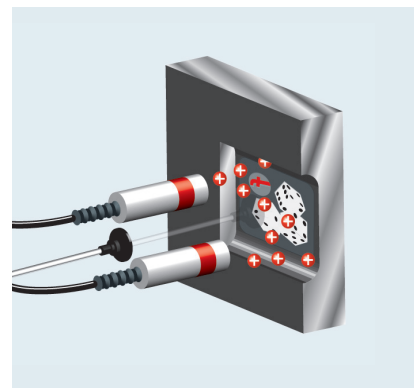


1) Charging the label as it is carried into the tool.

The label is held so that it passes through a charging station consisting of a static generation head and an earth. Passing through the electric field between the head and the earth, the label will acquire a static charge. The design of the charging head depends on the sizes of the label - it could be a single point generator or a linear bar generator.



Suction holds label.
Charge OFF



Charge turned ON.
Suction turned OFF.
Label sticks to inside of tool.
Charge turned OFF.

2) Charging the label when it is in the tool.

The label is held to a robot arm by suction. When the label is in the correct position inside the tool a short static charge is applied and the suction is turned off.

One second of charge is sufficient. The label will stick to the inside of the tool. The number of charge points depends on the size of the label

System (2) requires more engineering from the customer but results in more powerful adhesion than system (1).