

Static Electricity causes severe problems throughout the moulding processes.

### Injection Moulding

The accumulation of small plastic parts in a container creates a high static charge which attracts dust and can give the operators unpleasant shocks.

It is not efficient to use a short range Bar on the conveyor, because most of the charge in the mouldings "couples" with the conveyor and is not available for neutralisation.

The most efficient method is to use a 3850 Bar to neutralise the parts as they fall into the container. This neutralises all the charge and prevents electrostatic attraction and shocks

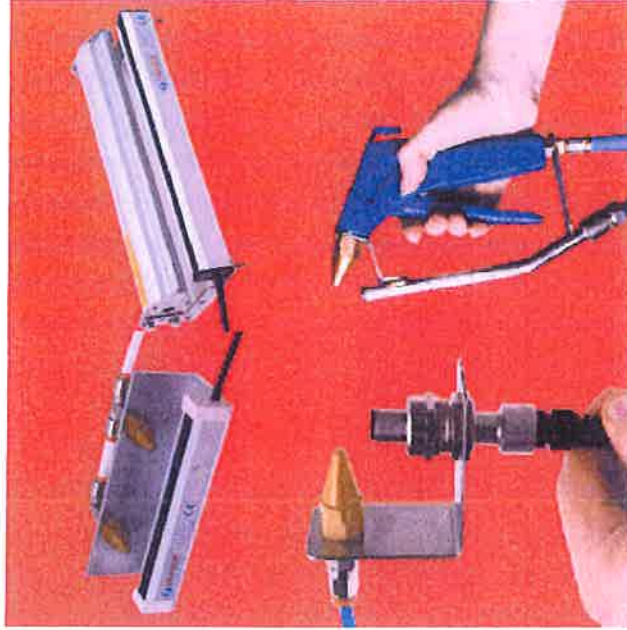
3850 Ionstorm Bar



### Deflashing, Swarf and Dust

If the mouldings are trimmed or machined, or if they have had the opportunity to attract airborne dust, they may need to be cleaned before painting or packing.

Fraser offers a range of manual and automatic cleaning options which include ionised air guns, nozzles, compressed airknives and fan-driven airknives.



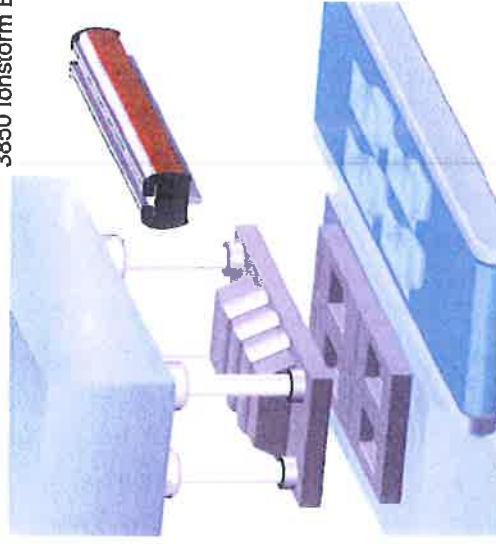
### Thermoform / Vacuumform

The heat, pressure and separation from the tool results in a statically charged product.

This causes the products to stick together when stacked, and considerable dust attraction can occur.

The options are to use a Model 2000 Blower or a 3850 Long Range Ionstorm Bar as shown below.

3850 Ionstorm Bar



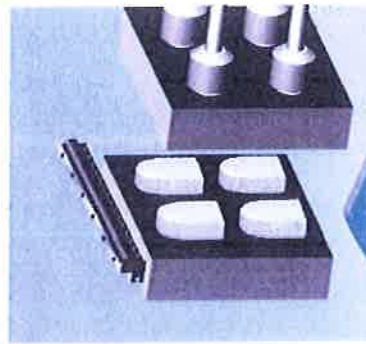
Static electricity causes unique problems to injection mouldings which have a high surface to weight ratio. This includes hollow, thin walled mouldings like disposable syringes and other medical products. These problems include:

### Adhesion to Toolface

The mouldings stick to the toolface when ejected from the tool instead of falling into the collection system

The static charge exerts a powerful attraction due to the relatively large surface area of the moulding.

The solution is to blow ionised air from the top of the tool when the tool opens. This will neutralise the static charge and blow the mouldings from the tool. Operation by solenoid or similar control is normal.



High speed ionised air is blown down toolface as soon as it opens to kill the charge and release the mouldings



5000 Airknife

### Adhesion to Conveyor

The static charge on the mouldings can cause them to stick to the conveyor instead of falling into the bin.

Neutralising the mouldings on the conveyor with a 1250 Bar is not always successful if the product is flat - the charge in the moulding couples with the conveyor. A better solution may be to use a 1250 Air Bar as shown below. The gentle airflow will stop the product following the conveyor and allow it to fall into the bin.



Ionstorm 3850 Bar



1250 Air Bar blowing a gentle ionised airflow to dislodge mouldings



1250 Air Bar



3850 Ionstorm Bar

