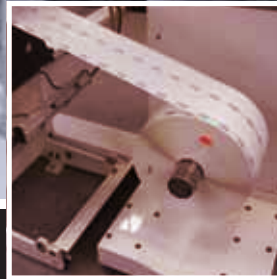




FRASER
Anti-Static Techniques

Controlling Static Electricity in Industry

THE COMPANY



FRASER ANTI-STATIC TECHNIQUES started manufacturing static control equipment in 1991. The first customers were machinery manufacturers in plastics and paper processing. Since then innovation and development have produced continuous growth.

Today Fraser not only makes static control equipment for leading machinery manufacturers, it also has become a major supplier to manufacturing and processing companies worldwide - either directly or through a network of distributors. Many of the leading names in industry use Fraser equipment.

The Head Office is based in the south west of the UK.

When purchasing a Fraser product you are not just buying equipment but buying a service. Fraser's commitment is to provide:

- ▶ A fast and expert response to customers' requirements.
- ▶ Technical support and advice direct from the factory and from a worldwide network of distributors. Static electricity is an area where specialist knowledge is essential.
- ▶ Efficient and cost-effective static control solutions. From simple passive devices to advanced electronic products.
- ▶ Fast production of custom made equipment. We aim to make our delivery times the best in our industry.

Quality solutions
for today's industry





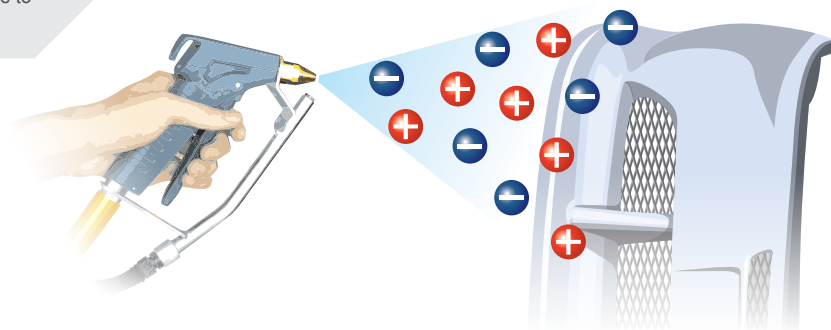
Static Electricity Problem Areas

Fraser specialises in providing solutions to industrial static electricity problems. These fall into five main areas:

A 4100 Ionised Air Gun on a bumper paint spray line - removing attracted particles prior to painting and neutralising the static charge to prevent re-attraction.

QUALITY

Typical quality problems are caused by electrostatic attraction of dust and other contaminants. These result in high reject and rework rates, customer complaints and an uncompetitive loss of profit and credibility in a world of increasing quality standards.

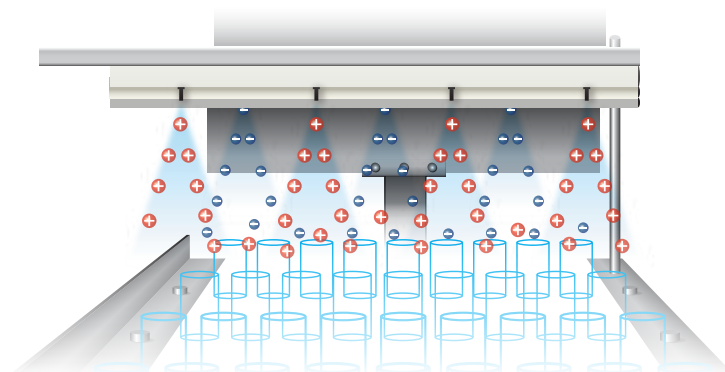


A 3850HP Ionstorm Long Range Ionising Bar on a high speed plastic bottle line will neutralise the static charge and prevent product misbehaviour.

PRODUCTIVITY

Electrostatic attraction and repulsion are responsible for problems across industry. Slow machine speeds, product misbehaviour, contamination, physical damage, waste - the list is extensive.

A good static eliminator can counter these problems and allow production to run at full speed without waste. Fraser offers cost-effective products which improve productivity in every industrial country.



Industries where we have specialist knowledge and experience include:

Packaging:	the biggest single industry worldwide, using film, mouldings, bottles, paper and labels to protect, present or decorate other products
Plastics:	film production and converting; every moulding process from plastic bottles to vacuumforming, from automotive parts, boats, helicopters, jet fighter cockpits to medical parts and compact discs
Printing:	on paper, film and products: using digital, litho, flexo, gravure, pad and screen processes
Paper:	from the paper mill to the tissue converter, a wide range of applications
Food:	including the handling of raw materials, through to the final packaging
Pharmaceutical:	handling and packing expensive products in cleanrooms
Medical:	moulding and assembly in clean conditions
Automotive:	cleaning automobile bodies and mouldings before painting
Electronics:	manufacture, assembly and test under controlled conditions
Textiles:	carding, warping, beaming, sizing, stenters, transfer printing, inspection
Optics:	contact lenses, optical devices, display windows, fibre optics
General:	conveyors, product handling, pneumatic transport, plastic recycling and many others

The operator's body becomes charged by induction from standing close to the electric field of the winding machine. The static charge will stay in his body until he touches an earthed part of the machinery giving him a shock as the charge zaps to earth.

SAFETY

Static shocks are unpleasant and can be dangerous. They should not be tolerated because they are avoidable. They occur in all industries where mouldings and other plastic products are handled. The shock can come from charge accumulating in the operator's body or direct from the product - such as when a hand is put close to a container of mouldings or other charged parts.

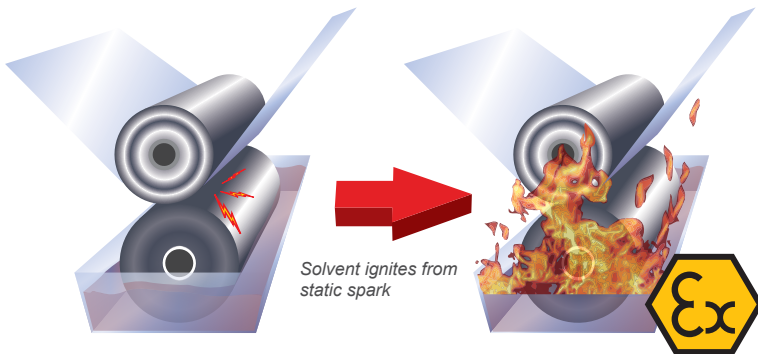


HAZARDOUS AREAS

Hazardous areas in gravure and flexo printing, coating and laminating industries have the same static problems affecting quality and productivity as other film processors, such as high charge levels on winders which disrupts downstream operations. But they also have the more serious risk that a static discharge could ignite the solvent used in the process, resulting in a fire or explosion. This can be a major safety risk.

Fraser offers a unique range of equipment ATEX certified for use in hazardous area zones I and II.

An EX1250 Ionising Bar treating the web would prevent the catastrophic event shown below - a spark from the statically charged web on a solvent ink gravure press results in ignition of the ink vapours.

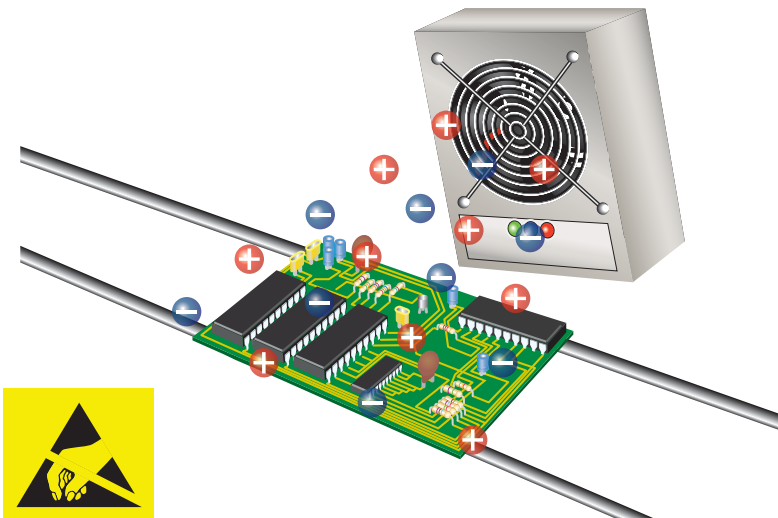


A balanced Ionised Air Blower in areas exposed to static charges will protect PCBs containing sensitive electronic components from ESD failure.

DAMAGE TO ELECTRONICS

Electro-static discharge (ESD) damage to electronics is well known. Many Fraser products are suitable for the special requirements of electronics production.

In general industry static electricity damages the electronics in sensors, checkweighers, printing heads, metal detectors and control systems. The damage can cause complete failure or intermittent interference, which can be more difficult to detect.



All Fraser static eliminators conform to the highest safety standards.

All development and manufacturing is within an ISO 9001-2000 Quality System.

All Fraser products meet relevant CE standards. Other standards include UL and ATEX. The 1250 and Super 80 Static Eliminator Bars were the first in our industry to meet the new international CB standard - the IEC passport to all main industrial markets.



Static Control Products

The Fraser range of Static Control equipment includes the following:



SHORT RANGE Static Neutralisation

Where the static eliminator can be positioned close to the material Fraser offers technically advanced products like the 1250 and Super 80 Bars. These are among the most powerful static eliminators available. A range of ATEX certified 1250 Bars are also available for use in hazardous areas.



DUST REMOVAL and CLEANING

Fraser products remove the contaminants and neutralise the static charge which attracted them.

A wide range of Ionised Air Guns, Nozzles and Air Knives are available. For larger applications there are fan-driven systems with very low running costs.



LONG RANGE Static Neutralisation

Where the static eliminator cannot be positioned close to the material, Fraser offers two methods of long range static neutralisation:

- high performance Ionstorm equipment which provides static neutralisation at distances of up to 1m without air assistance.
- air assisted static eliminators to transport the ionisation to where it is required. Fraser Ionised Air Blowers are made in stainless steel to withstand the harshest factory conditions and are available in lengths up to 3m.

MEASURING

Static electricity problems are impossible to analyse scientifically without a method of measuring the charge. The Fraser 715 is one of the leading instruments in its class. It is easy to use, accurate and reliable. The EX715 is ATEX certified for use in hazardous areas.

A good Static Meter is also invaluable in monitoring the effectiveness of static eliminators.



STATIC GENERATION

The attractive power of static electricity can be used for temporary adhesion. It is clean, versatile and inexpensive.

Fraser offers a range of Generators and Charging Heads. All Charging Heads are resistively coupled to the high voltage for safety and reliability.

Static generation is a fast-growing market with many new applications.



To view our complete range of products visit our website
www.fraser-antistatic.co.uk
or refer to the back page for contact details



FRASER
Anti-Static Techniques

*For more information about static and a full range of our products
visit our website at:*

www.fraser-antistatic.co.uk

Scotts Business Park,
Bampton,
Devon.
EX16 9DN
United Kingdom

Tel: +44 (0)1398 331114
Fax: +44 (0)1398 331411
Registered in England: 2642741
VAT Number: GB586069892

Distributor