

ATEX and FM approval

STAT:2

Clamps, Cables and Reels

STAT:3 - 4

Static Earthing Control

Static electricity is a serious potential hazard for operations taking place in flammable, combustible or potentially explosive atmospheres. The uncontrolled build up and discharge of electrostatic must be avoided in these environments in order to prevent ignition so that the people, plant, processes and environment are constantly protected.

Kingsmill offer a full range of static earthing, grounding and bonding products that can help eliminate, control or ease these risks.

ATEX and FM Approval

When flammable or combustible products are being handled and processed in hazardous areas it is essential to specify certified equipment that will protect personnel from sources of electrostatic ignition.

Static earthing clamps that combine ATEX & Factory Mutual approvals are rigorously tested and certified to ensure they are capable of dissipating static charges from potentially charged equipment. This is especially significant when the equipment can be covered in coatings, product deposits or rust that is capable of preventing the clamp from making low resistance electrical contact with the equipment to be earthed.

Establishing a solid electrical connection can only be achieved by penetrating any connection inhibitors like coatings, product deposits and rust. Factors like this will impede the dissipation of static charges from the object to earth if the clamp is not capable of penetrating them and making a connection to the base metal of the container or vessel. Once a strong connection is established, it is vital that this connection remains constant for the duration of the process operation.



ATEX certification ensures there are no sources of mechanical sparking, like thermite reactive materials such as aluminium, or sources of stored mechanical energy, present in the construction of the clamp.



Factory Mutual approved clamps undergo a series of mechanical and electrical tests to ensure they can function as reliable static earthing clamps in EX/HAZLOC areas.

Clamps, Cables and Reels

Static Earthing clamps, cables and reels are single circuit applications that rely on high strength mechanical circuits to dissipate static electricity from potentially charged equipment.

Clamps are specially designed to dissipate static electricity from potentially charged equipment and are subjected to rigorous FM & ATEX testing standards.

In some cases, hazardous area operators rely on small clips and welding clamps to earth equipment without any guarantee they are penetrating hardened product deposits, rust or paint. To mitigate against this uncertainty our clamps are fitted with a pair of tungsten carbide tips to bite through connection inhibitors and achieve direct electrical contact to potentially charged equipment. The stainless steel construction provides corrosion resistant benefits and is capable of working in tough industrial environments.

The clamps can be supplied with static dissipative Hytrel coated retractable spiral cable or static discharge reels.

The range offers an entry level of protection from static electricity.

The FM and ATEX approved clamps are designed and manufactured to work in the toughest conditions, enabling them to constantly maintain good electrical contact with the equipment at risk of a static hazard. Supplied in a range of clamps, cables and reels.

Typical Applications:

- Small containers, drums, vessels,
- IBC's (Intermediate Bulk Containers),
- Wide Range of Containers.

Benefits of Kingsmill Static Control

Clamp Pressure Testing

Ensures the earthing clamp is capable of establishing and maintaining low resistance electrical contact with equipment (FM approvals).

Electrical Continuity Testing

Ensuring the continuity from the teeth throughout the earthing clamp is less than 1 ohm (FM approvals).

High Frequency Vibration Testing

Ensures the earthing clamp is capable of maintaining positive contact when attached to vibrating equipment (FM approvals).

Mechanical Pull Testing

Ensures the earthing clamp cannot be pulled off the equipment without an intentional application of force (FM approvals).

Sources of Mechanical Sparking

Ensures no mechanical sparking sources are present in the clamp (ATEX certification).

Stainless Steel M/D Clamp



Twin tungsten carbide teeth to provide a very reliable earth connection. Designed for small drums and containers. Ergonomic design.

| CLAMP | WEIGHT (kg) | PART NO. |
|-------------------|-------------|----------|
| Medium Duty Clamp | 0.15 | VESX45 |

Material: Stainless Steel

Stainless Steel H/D Clamp



Twin Tungsten carbide teeth to provide a very reliable earth connection. Designed for drums, vessels and IBCs.

| CLAMP | WEIGHT (kg) | PART NO. |
|------------------|-------------|----------|
| Heavy Duty Clamp | 0.45 | VESX90 |

Material: Stainless Steel

Clamps with Spiral Cable



Coiled cable retracts when not in use (1:10 extension ratio). Proven to hold its shape after at least 20,000 extensions. Tested against 174 different chemicals with superior abrasion resistance.

| CLAMP | CABLE LENGTH (m) | WEIGHT (kg) | PART NO. |
|----------------------------------|------------------|-------------|----------------|
| Medium Duty Clamp with 3m cable | 3 | 0.50 | VESX45/CAB1G03 |
| Medium Duty Clamp with 5m cable | 5 | 0.80 | VESX45/CAB1G05 |
| Medium Duty Clamp with 10m cable | 10 | 1.45 | VESX45/CAB1G10 |
| Heavy Duty Clamp with 3m cable | 3 | 0.80 | VESX90/CAB1G03 |
| Heavy Duty Clamp with 5m cable | 5 | 1.10 | VESX90/CAB1G05 |
| Heavy Duty Clamp with 10m cable | 10 | 1.75 | VESX90/CAB1G10 |

Clamps with Static Discharge Reel



Self-retracting yellow Hytrel coated galvanised steel cable. 3 reels available with varying lengths.

| CLAMP | REEL LENGTH (m) | WEIGHT (kg) | PART NO. |
|-----------------------------------|-----------------|-------------|------------|
| Medium Duty Clamp with 6.1m reel | 6.1 | 2.25 | VESX45/R20 |
| Medium Duty Clamp with 9.2m reel | 9.2 | 2.45 | VESX45/R30 |
| Medium Duty Clamp with 15.2m reel | 15.2 | 2.55 | VESX45/R50 |
| Heavy Duty Clamp with 6.1m reel | 6.1 | 2.60 | VESX90/R20 |
| Heavy Duty Clamp with 9.2m reel | 9.2 | 2.75 | VESX90/R30 |
| Heavy Duty Clamp with 15.2m reel | 15.2 | 2.85 | VESX90/R50 |