



ETA ASSOCIATES

A DIVISION OF SAFETY INC.
PRODUCT UPDATE September 2007



Newson Gale Inc.

Static Control for Hazardous Areas

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Newson-Gale
Products

Static electricity or the build-up of electrostatic charge is present all around us. Many plant fires and personnel injuries can be directly linked to a static spark igniting a vapor, gas or dust atmosphere. In any type of flammable atmosphere there may be hidden dangers present, in the form of "isolated conductors". These are conductive objects which are either inherently or accidentally insulated from ground, so as to prevent any static electricity generated from safely dissipating, thus resulting in accumulation of charge on the object. These isolated conductors include metal flanges, fitting or valves in pipe work systems; portable drums, containers or vessels; road tankers, rail cars and even people! Isolated conductors are probably the most likely source of static ignition.

The problem associated with isolated conductors can be remedied by effective grounding (linking the conductive object to a known "grounding point" via a mechanically strong and electrically conducting cable) and bonding (linking together adjacent conductive objects to equalize the potential between them).

Intrinsically Safe, self-testing grounding clamps should be specified. These devices are used in exactly the same way as conventional grounding clamps. Where they differ is in the way that they reassure the operator that the clamp has not only been physically attached, but is also performing its intended function of safely dissipating any static electricity that is generated. These clamps employ active electronic monitoring circuits that are powered from an internal low energy battery. The circuit is only completed when the clamp achieves a low resistance contact onto the object to be grounded, and the operator receives visual confirmation of this via an indicator (usually a flashing LED). The self-testing grounding clamp also monitors cable condition back to the designated grounding point, and will also fail to register a permissive signal if the cable has worked loose or is broken.

To move to an even higher level of security, earth monitoring systems may also be used that not only give visual verification to the operator, but also provide interlock switching contacts that may be linked to process pumps, valves, alarms or control systems. This means that the process cannot be started until the conductive object has been safely grounded and if at any time during the operation the condition changes (due to a clamp being accidentally removed, etc.) the system automatically switches to non-permissive and shuts down the process.



SAFETY INC. / ETA ASSOCIATES

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The Bond-Rite Clamp



Introducing, the new self - test hazardous area static grounding clamp serving portable plant items. This grounding clamp is specifically designed for hazardous area applications by protecting against static electricity build-up in mobile or portable equipment. The new clamp, the Bond-Rite Clamp from Newson -Gale Inc., creates and continuously monitors low -resistance connection to ground, providing visual verification through a flashing LED indicator.

The new clamp, the Bond-Rite Clamp from Newson -Gale Inc., creates and continuously monitors low -resistance connection to ground, providing visual verification through a flashing LED indicator.

VESF63 Ex IS Tester



This is an ATEX certified electrical resistance measuring device designed for measuring the resistance of grounding / bonding circuits in hazardous atmospheres.

- ATEX certified and suitable for use in hazardous areas
- Measures a range of resistance from 2 meg Ohm down to 10 milli Ohm.
- Test earthing equipment situated in hazardous areas
- Identify points where static has potential to accumulate on plant & equipment.
- Easy calibration for different cable lengths.
- Tough ABS casing with IP 65 rating.

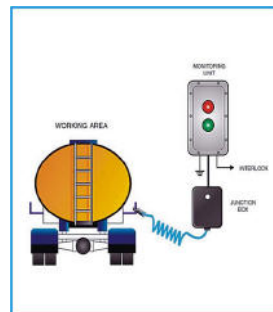
Wall-mounted Static Grounding Clamp



The new intrinsically safe Bond-Rite Remote wall-mounted module and grounding clamp system continually verifies that a low-resistance connection to ground is maintained in areas where

potentially flammable materials are stored, handled or transferred.

Earth-Rite Plus



The Earth -Rite PLUS provides positive verification of static ground connection on a wide range of industrial plant, including tanker trucks, railcars, drums, containers and other conductive equipment.

Key features and benefits

- Easy to install, operate and maintain
- Ground connection junction box simplifies I.S. Field wiring, system set-up and repairs in hazardous atmospheres.
- Every unit supplied with full installation and operating manual
- Meets requirements of NFPA 77 recommended practice on static electricity.
- Confirms safe, low-resistance static dissipation path (< 10 Ohms) from tanker, drum etc to designated ground point
- Universal ground clamp suits all common tankers, drums and conductive plant equipment

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