

# APPLICATION BRIEF

## SAFETY & COMPLIANCE

● NEC	● OSHA
590.6	1926.404
314.23	1910.304
314.17	1910.10

## Safety and Productivity

### New Woodhead® GFCI solutions from Molex ensure OSHA compliance and keep maintenance/repair operations on track.

**Business Challenge:** Comply With OSHA Regulations Requiring GFCI Protection For Extension Cords and Weatherproof Enclosures For Outdoor Receptacles. New OSHA regulations took effect on August 13, 2007, requiring that all extension cords used for maintenance and repair work be protected by Ground Fault Circuit Interrupters (GFCI) and that all outdoor electrical receptacles be protected in weatherproof enclosures. This means companies must have the right electrical products on hand to keep their operations in compliance to avoid costly fines. Companies must also ensure that workers understand and implement proper procedures for safely powering portable equipment at worksites.

**Solution:** Woodhead® GFCI and Watertite® Receptacles. Always in the forefront, Molex has a wide range of readily available GFCI solutions that can help you comply with OSHA regulations and keep your operations running smoothly. Most importantly, Woodhead inline GFCI cordsets can help keep your workers safe by protecting against dangerous and possible fatal electrical shocks. Woodhead GFCI Products are OSHA compliant for outdoor maintenance/repair use and meet all applicable National Electric Code (NEC) standards.

In addition to safety issues, using the right Woodhead GFCI cordset can make your workers more productive by eliminating nuisance tripping. For example, paper mill workers were on ladders drilling large holes in beams to install fixtures. On a rainy day, they found that their non-code compliant GFCI extension cords kept tripping. After several trips up and down the ladders, they determined that water was leaking into the GFCI units and causing the tripping. If their extension cords had been Woodhead code-compliant cordsets, they could have continued working uninterrupted.



GFCI units are particularly important to safeguard workers, tools and equipment in muddy, damp and wet locations. Even working environments that are merely humid or misty can be problematic. OSHA-compliant GFCI units ensure that people don't get hurt when they are working in a wide variety of difficult environments.

Choosing the right equipment for the job is also vital. For example, Woodhead GFCIs are available in both automatic reset and manual reset. An automatic reset unit does *not* require activation by hand after a power outage, but *does* require it after a ground fault condition. This feature eliminates the need for the unit to be reset each time power is turned off and on and is ideal for applications such as lighting or power distribution where devices are unattended. For example, an automatic reset unit would be appropriate for a dark hallway where lighting is essential.

Woodhead manual reset GFCIs must be activated by hand after a power outage or in the event of a ground fault condition. Manual reset protects against potential hazards associated with unmonitored equipment startup and force "Safe Start" conditions. In addition to being OSHA compliant, Woodhead GFCIs are electro-magnetically latched. This prevents circuit failure in a contact-closed state if a circuit failure should occur, it will be in a contact-open "no-power" state. It will not de-latch under rough service causing nuisance tripping of the GFCI contacts.

Since standard electrical receptacles are dangerous in wet, harsh environments, using rugged, durable, harsh-duty rated Woodhead Watertite® GFCI outlet boxes and receptacles is clearly the safe choice.

One common violation involves using standard, non-watertight electrical receptacles with metal covers for temporary power. These units could cause shorting that can result in electrocution. Woodhead Watertite GFCI outlet boxes and receptacles can protect workers—and anyone else in those areas—from electrical shock. NEC 2008 requires the use of ground-fault protection, while OSHA 1926 permits either GFCIs or an Assured Equipment Grounding Conductor

Program. All GFCI outlet boxes and receptacles support OSHA 1926.404 and OSHA 1910.304 and NEC 590.6 requirements.

GFCI outlet boxes fitted with the Watertite receptacles feature spring-loaded flip-lid covers with built-in lock-out/tag-out capabilities and when used with a Watertite plug, the patented triple seal offers additional protection in wet locations. The box is U.L. listed and tested and meets OSHA 1910.10, NEC 314.23 and NEC 314.17 requirements.

**Benefits and ROI:** Molex has a complete line of GFCI products. All Woodhead electrical products are designed to perform reliably even in the toughest environments. The company's standard and custom-designed electrical solutions are used in industries such as automotive, aerospace, manufacturing, maintenance, construction sites, food processing, utilities, petrochemical, pulp and paper processing, public facilities, shipyards and more.

Woodhead GFCI products from Molex keep your operations in compliance, helping you reduce potential safety risks, avoid OSHA fines and minimize the risk and cost of workplace accidents. They can also make your workplace more productive by keeping electrical equipment working smoothly in adverse conditions. Using GFCI products is not only the law—it's also the smart thing to do.



To learn more about Woodhead® electrical products and solutions, call your Molex representative today or call 1-800-225-7724 or visit [www.woodhead.com](http://www.woodhead.com)