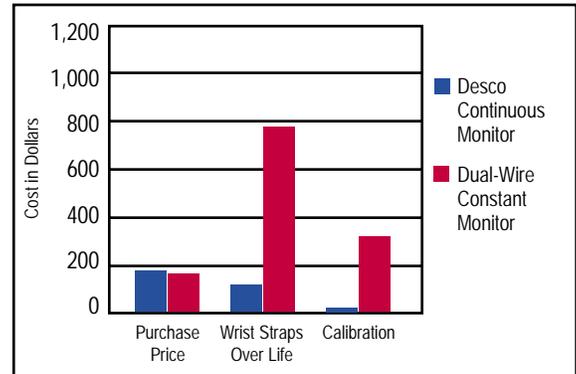


## Desco Uses Superior Wave Distortion Technology Our Continuous Monitors Pay For Themselves

Touch testing may occur once or twice a day, but how is one confident that the workstation is an ESD protected area all the time? Particularly problematic, is when a worker passes a touch test then works for four hours and then fails the touch test. Expensive testing of all ESD susceptible product that was worked on during those four hours is typically required.

The solution is to equip each ESD protected workstation with a Desco Workstation Continuous Monitor. The Monitor continuously verifies that the worksurface and worker's wrist strap are properly grounded, removing all generated electrostatic charges.

Those responsible to see that the written ESD control program is being followed, can stroll down aisles glancing at the illuminated green LEDs. Otherwise, they have the demanding task verifying that all grounding cords are electrically connected, that all wristbands are sufficiently snug, and that no highly charged insulators are on the worksurface. By their function, Desco Continuous Monitors satisfy the ISO 9000 test logging requirement.



From all the technical alternatives available, Desco has chosen wave distortion technology for all its continuous monitor product offerings. Wave distortion circuitry monitors current/voltage phase shifts and provides true 100% continuous monitoring. Electrical current will lead voltage at various points due to the combinations of resistance and capacitive reactance. By monitoring these "distortions" or phase shifts, the wave distortion Workstation Continuous Monitor will reliably determine if the circuit is complete.

The robustness of this technology can be dramatically demonstrated by wearing a plastic glove or placing plastic film under the wristband. Although, one knows there is a break in the electrical circuit from the worker's skin to the conductive portion of the wristband, typically, the Continuous Monitor will not alarm. A Charged Plate Analyzer will quickly verify that the Continuous Monitor is working correctly as enough capacitive coupling exists so that a charge can still dissipate to ground.

Desco Continuous Monitors more than pay for themselves. Improvement in quality and reduction in product defects should produce the most substantial cost savings. However, just the labor savings can be considerable. Our analysis of the typical savings of a single Workstation Continuous Monitor is \$656.00 annually, providing a Payback Period of 100 days! The calculation demonstrates that the Net Present Value of your decision to buy a single Workstation Continuous Monitor is \$1,638.00. For a copy of this Excel® spreadsheet, just request by emailing [techinfo@desco.com](mailto:techinfo@desco.com).

Desco Workstation Continuous Monitors allow the use of any standard, single-wire wrist strap, and coil cord. The monitor/wrist strap/cord system life-cycle costs are by far lower than alternative systems, which require expensive & fragile dual-wire cords and special wrist straps.

As the most likely component to need replacement, the dual-wire cords are the weak link of the system. Although the monitor may be comparatively priced, with higher calibration costs and much higher wrist strap costs, the dual-wire system is four times as expensive over a five year period.

### FEATURES AND BENEFITS OF DESCO WAVE DISTORTION TECHNOLOGY

#### FEATURES

- Real-time monitoring of ESD workstation including wrist strap, mat, and cords*
- Utilizes reliable wave distortion technology*
- Can use with any brand of single-wire wrist strap and cord*
- Miniscule electrical current required to generate waveform*
- Designed for use by 5 foot tall 90 pound to 6 foot 5 inch 250 pound person*
- Provided with calibration to NIST traceable standards; calibration unit available for users to maintain NIST calibration at their facility (see Item # 98220, page 54)*

#### BENEFITS

- Pays for itself - ensures ESD protected workstation, reducing catastrophic and latent defects*
- Provides true 100% continuous monitoring*
- Cannot be fooled; no false alarms*
- Not pulsed current that's off over 90% of time*
- With less expensive, more durable single-wire components, life-cycle costs of monitor/wrist strap/cord are 66% lower than dual-wire approach*
- No reported case of skin irritation*
- Individual adjustment for each operator is not necessary*
- Simple means to assure accurate performance*
- Lower calibration life cycle costs*