## Why use surge protection?

Surge protectors protect personnel and equipment from damaging high-voltage surges from lightning, inductive switching, nuclear electromagnetic pulse, electrostatic discharge, or interference from power supply lines.

From a design point of view, protection circuits only cost money and, if customer requirements or regulatory agencies do not require them, they will easily be forgotten. Yet, appropriate surge protection is beneficial. Protected equipment will not be affected by the high-voltage surges listed above. This will result in:

- Reduced field failures
- Improved product quality and reliability
- Reduced cost of quality

The figure below illustrates the cost effectiveness of adding surge protection by demonstrating the unit repair cost to break even over a range of return rates for added protection costs of \$0.50/unit and \$1.00/unit.

Through ongoing research and engineering improvements, Clare has developed a family of Surge Protection Products that offer impressive characteristics for a variety of applications. Four differentiating characteristics are found in every Clare Surge Protection Product:

- High surge current rating
- Long life
- Fast response
- Rugged construction



