1 Receiving and Handling Instructions

1.1 Receiving Inspection

Visually inspect the system for obvious shipping damage. If shipping damage is apparent, file a claim with the carrier and submit a copy to Bently Nevada LLC.

1.2 Handling and Storing Considerations

Handling and storing of printed circuit boards is extremely critical. Circuit boards contain devices that are susceptible to damage when exposed to electrostatic charges. Damage caused by obvious mishandling of the board will void the warranty. To avoid damage, observe the following precautions in the order given.

Application Alert

Machinery protection will be lost when all the power is removed from the rack.

- Do not discharge static electricity onto the circuit board. Avoid tools or procedures that would subject the circuit board to static damage. Some possible causes include ungrounded soldering irons, nonconductive plastics, and similar materials.
- Personnel must be grounded with a suitable grounding strap (such as 3M Velostat No. 2060) before handling or performing maintenance on a printed circuit board.
- Transport and store circuit boards in electrically conductive bags or foil.
- Use extra caution during dry weather. Relative humidity less than 30% tends to multiply the accumulation of static charges on any surface.

When performed properly, modules may be removed from or installed into the rack while power is applied to the rack. Refer to “Module Installation and Removal” on page 57 for the proper procedure.

1.3 Disposal Statement

Customers and third parties that are in control of product at the end of its life or at the end of its use are solely responsible for proper disposal of product. No person, firm, corporation, association or agency that is in control of product shall dispose of it in a manner that is in violation of United States state laws, United States federal laws, or any applicable international law. Bently Nevada Corporation is not responsible for disposal of product at the end of its life or at the end of its use.

2 General Information

Monitoring and computerized vibration information systems provide the information needed to assess the mechanical condition of rotating and reciprocating machinery. These systems continuously measure and monitor a variety of supervisory parameters, providing crucial information for early identification of machinery problems such as imbalance, misalignment, shaft crack, and bearing failures. As such, they are an efficient and effective means of satisfying plant management, engineering, and maintenance concerns for:

- Increasing plant safety by minimizing the occurrence of hazardous conditions or catastrophic failures.
- Improving product quality by minimizing process variances caused by improperly operating equipment.
- Maximizing plant availability by servicing only those machines that require it and having more efficient turnarounds.
- Reducing plant operating costs by minimizing unplanned shutdowns and by making more efficient use of maintenance resources.

For protection of critical machinery, it is highly recommended to permanently install continuous monitoring systems. The term "protection" means that the system can shut down machinery on alarm, without human interaction. These systems include applicable transducers, each with its own dedicated monitoring circuitry and alarm setpoints. The 3500 Monitoring System is the newest addition to the family of continuous monitoring systems offered by Bently Nevada Corporation.

3500 Monitoring System: Designed using the latest in proven microprocessor technology, the 3500 is a full-feature monitoring system. In addition to meeting the above stated criteria, the 3500 adds benefit in the following areas:

- Enhanced Operator Information
- Improved integration to plant control computer
- Reduced installation and maintenance cost
- Improved reliability
- Intrinsic Safety option

Enhanced Operator Information: The 3500 was designed to both enhance the operator's information and present it in a way that is easy for the operator to interpret. These features include:

- Improved Data Set
  - Overall Amplitude
  - Probe Gap Voltage
  - 1X Amplitude and Phase
  - 2X Amplitude and Phase
  - Not 1X Amplitude
- Windows® Based Operator Display Software