VIBRATION MONITORING FOR

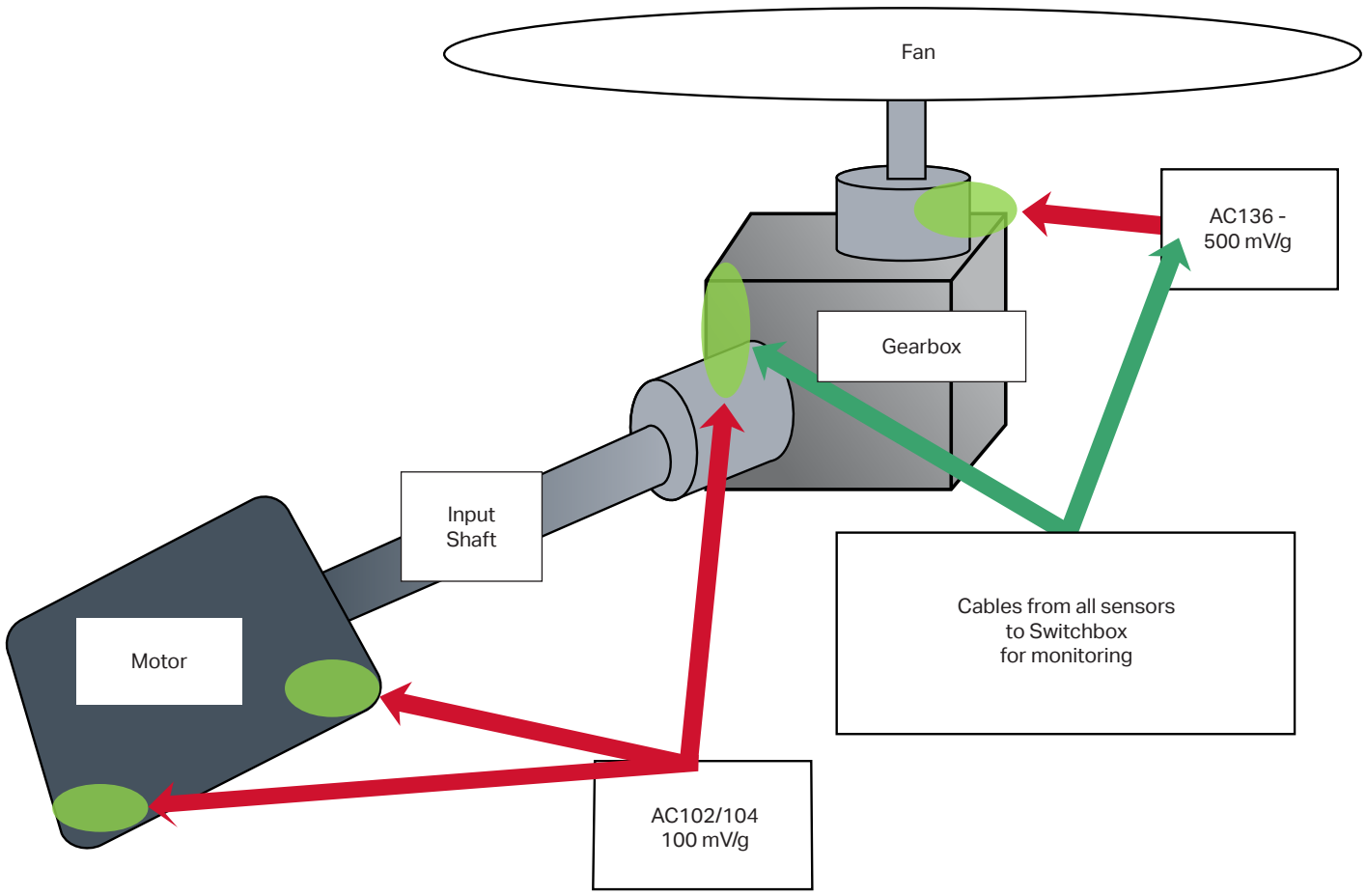
Cooling Towers

WHEN RELIABILITY MATTERS
CONNECT TO CONFIDENCE

Cooling towers are frequent choices for vibration monitoring due to their often critical role in maintaining operational efficiencies. Vibration analysis can be used to improve reliability and extend lifetime of cooling tower equipment. While cooling towers range from small single cell units to large multi-cell configurations, any configuration that employs the use of rotating parts requires effective monitoring.

How It Works

The machinery generally consists of three phases: motor, gearbox, and fan. In order to provide maximum reliability, all three phases should be monitored. To accomplish this, accelerometers should be placed at key places on the motor, gearbox, and fan bearings. Typically, vibration sensors are mounted on the bearing surface in either the horizontal, vertical, or axial directions.



What We Offer

Accelerometers:

For maximum coverage, 6 sensors should be used on both the motor and gearbox for a total of 12 sensors per installation. General purpose sensors like CTC's AC192 and AC194 series sensors rated at 100 mV/g would be recommended for applications over 30 CPM (0.5 Hz). Low frequency applications from 12 CPM to 30 CPM (0.2 to 0.5 Hz) should use a 500 mV/g sensor like CTC's AC133 or AC134 series accelerometers.

AC192-1D

AC194-1D

AC133-1D

AC134-1D

Cables:

Using the correct cabling to take the signal to a switch box located in a more easily accessible area is important. Teflon jacked or armored cables are usually selected for this purpose. CTC's CB111 Teflon jacketed cable and CB206 armored cables with several choices of connector are suggested for this purpose. These cables should be connected to a switch box such as the JB110, which is also capable of passing the signal through to a remote monitoring system such as a DCS, PLC, or SCADA System.

CB111-V2N-030-Z

CB206

The V2N/V3N connectors provide an IP68 seal tight connection for protection in the wet environment of cooling towers.

CTC is the world leader in the design and manufacture of industrial accelerometers, piezo velocity transducers, 4-20 mA vibration sensors, and proximity probes as well as all related mounting hardware, cabling, and junction boxes. Our products enable efficient vibration monitoring for predictive maintenance in a wide variety of industries. Industries served include cement, mining, petrochemical, food & beverage, auto, steel, wind, paper & pulp, power generation, water & wastewater treatment, pharmaceutical, hospitals, bottling, and more. Our mission is to offer the widest variety of accelerometers and vibration hardware products, which are compatible with data collectors and online monitoring systems, as well as the tools for installation.

CTC
VIBRATION ANALYSIS HARDWARE

The CTC product line features vibration analysis hardware for heavy industry.

All CTC products are backed by our unconditional, lifetime warranty. If any CTC product should ever fail, we will repair or replace it at no charge.

PRO
PROXIMITY PROBE SYSTEMS

The PRO line offers the industry's most reliable proximity probe sets.

All PRO products are backed by a lifetime warranty on materials and workmanship. PRO will repair or replace any of our products as long as the product was not subjected to misuse, neglect, natural disasters, improper installation, or modification.

All stock products may be returned for a 25% restocking fee if returned in new and unused condition within 90 days of shipment. Built-to-order and private-label products qualify for a 50% refund if returned in new and unused condition within 90 days of shipment. Custom products are quoted and built specifically to the requirements of the customer, which may include completely custom product design or private-labeled versions of standard products for OEM customers. Custom products are non-cancellable, non-returnable, and non-refundable.