

Paper Machines & Conveyors

Sensors Built to Survive Hot, Wet and **Debris Filled Environments**





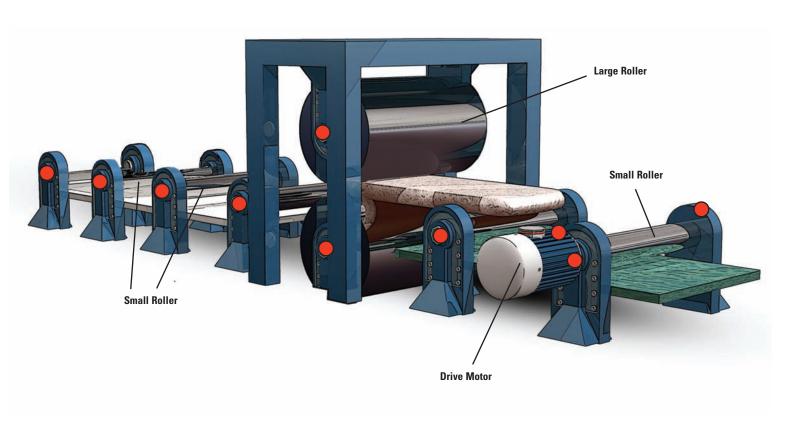




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Rolling-element bearings are the life blood of many industrial processes including the manufacturing of paper and plastics as well as mining. Often these bearings are located in hot, wet or dangerous areas that are inaccessible to the predictive maintenance professional. Using permanent mount accelerometers will allow the vibration analyst an opportunity to detect critical bearing faults such as pitting or spalling as well as lubrication issues before they cause a critical shutdown.

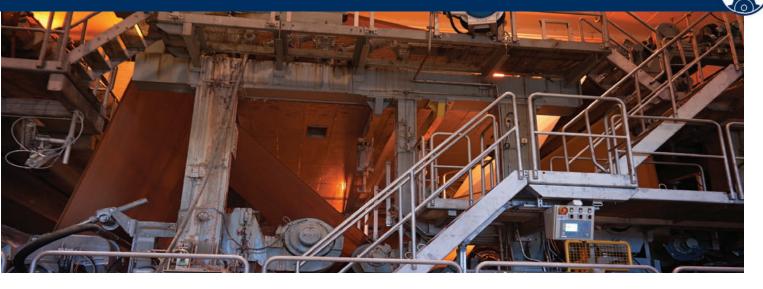
High temperature ICP® accelerometers allow for affordable protection. These designs offer the best high temp capability of any industrial sensor available on the market without an external charge amplifier. Integrated circuit high temp accelerometers can be routed straight to portable data collectors, saving the company money and providing a simple, clean installation.











Accelerometers for Dryer Section - Predictive Maintenance







- Ceramic sensing element
- Low profile design
- Through-bolt mount





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- Ceramic sensing element
- Short settling time
- Welded hermetic





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- Quartz sensing element
- Excellent thermal stability
- Welded hermetic



High Temperature ICP® Accelerometers

Model HT602D11 & Model HT602D61

- Ideal for high temp applications to 325 °F (162 °C)
- Hermetically sealed with integral FEP jacketed cable (optional armor jacket)
- Low profile design eliminates concerns about cable bend radius





Paper Machines & Conveyors

Often in paper and plastics manufacturing locations rolling-element bearings are difficult to monitor because of their slow speeds. The 1x running speed of the bearing may be lower in frequency than the low frequency range of a typical piezoelectric accelerometer.

For these applications IMI Sensors offers low frequency accelerometers. In these models the discharge time constant has been extended, thus allowing the sensor to monitor slower speeds down to 12 CPM (0.2 Hz). These sensors are ideal for both permanent mount applications and route-based applications. They are all welded hermetic, case isolated construction and built to survive harsh environments.

Accelerometers for Slow Speed - Predictive Maintenance



Precision ICP® Accelerometer Model 625B01

- Side exit, ring-style
- Low frequency response to 12 cpm (0.2 Hz)
- Ceramic sensing element



Precision ICP® Accelerometer Model 626B01

- Low noise floor
- Low frequency response to 12 cpm (0.2 Hz)
- Full sweep calibration



Low Frequency, 500 mV/g Accelerometers

Slow speed applications such as slow moving roller element bearings in a paper mill produce lower vibration levels. Consider increasing the sensor's sensitivity to 500 mV/g, thus increasing signal resolution in these applications.



Low Cost Industrial ICP® Accelerometer Model 601A02

- Low Noise
- M12 connector version available



Low Frequency Industrial ICP® Accelerometer

 Full sweep calibration certificate provided



Low Frequency Industrial ICP® Accelerometer

Model 626B02

Full sweep calibration certificate provided





General Purpose Accelerometers - Predictive Maintenance











Low Cost ICP® Accelerometer Model 602D01, Model M602D01

- Easy installation in tight spaces
- Through-bolt aides in connector orientation
- Less than 1 in. height
- M12 connector version available



Low Cost ICP® Accelerometer Model 603C01, Model M603C01

- Cost-effective sensor option
- IMI's most popular accelerometer
- Small footprint
- M12 connector version available

Low Cost ICP® Accelerometer Series 607A

- Unique 360° swivel design
- Allows for easy cable orientation
- Integral or armored integral cable options available

Mining Industry, Conveyors - Predictive Maintenance



Low Cost ICP® Accelerometer Model 607A61

- Unique 360° swivel design
- Allows for easy cable orientation
- Armored integral cable



Process Monitoring & Protection

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The continuous monitoring of bearing health is critical to the uptime and safety of paper machines and conveyor systems. IMI's Bearing Fault Detector directly interfaces with PLC, DCS, PI and other control systems providing an easy continuous monitoring solution. Not only does the Bearing Fault Detector provide overall RMS and Peak vibration, but also provides a 4-20 mA signal proportional to True Peak acceleration that is sensitive to early bearing faults. Paper machines and other conveyor processes often expose accelerometers and transmitters to extreme environments including high temperature, debris and caustic chemicals. IMI® offers ICP® accelerometers able to handle the harshest of environments with temperatures up to 325 °F and integral armor jacketed cable.

Complete Bearing Detection - Process Monitoring & Protection



Bearing Fault Detector Model 682B05

- Provides early warning of bearing and gear faults
- Operates with PLC, DCS, SCADA, alarm and control systems
- Outputs 4-20 mA signals for peak acceleration and overall vibration



Bearing Fault Detector PLUS Model 649A03

- Combination 4-20 mA Sensor PLUS vibration transmitter
- USB Programmable: Fine tune transmitter to your specific machine parameters
- Various output options: Integrates with your PLC system
- Output specifically tuned for sensing early faults/failures in rolling element bearings



DIN Rail Enclosure Model 682A00

- Strong fiberglass construction
- NEMA 4X rating



High Temperature ICP® Accelerometer Model HT602D11





High Temperature ICP® Accelerometer Model HT602D11





Low Cost ICP® Accelerometer Model 607A11, Model 607A11/030BZ, Model M607A11

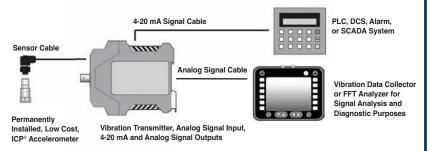




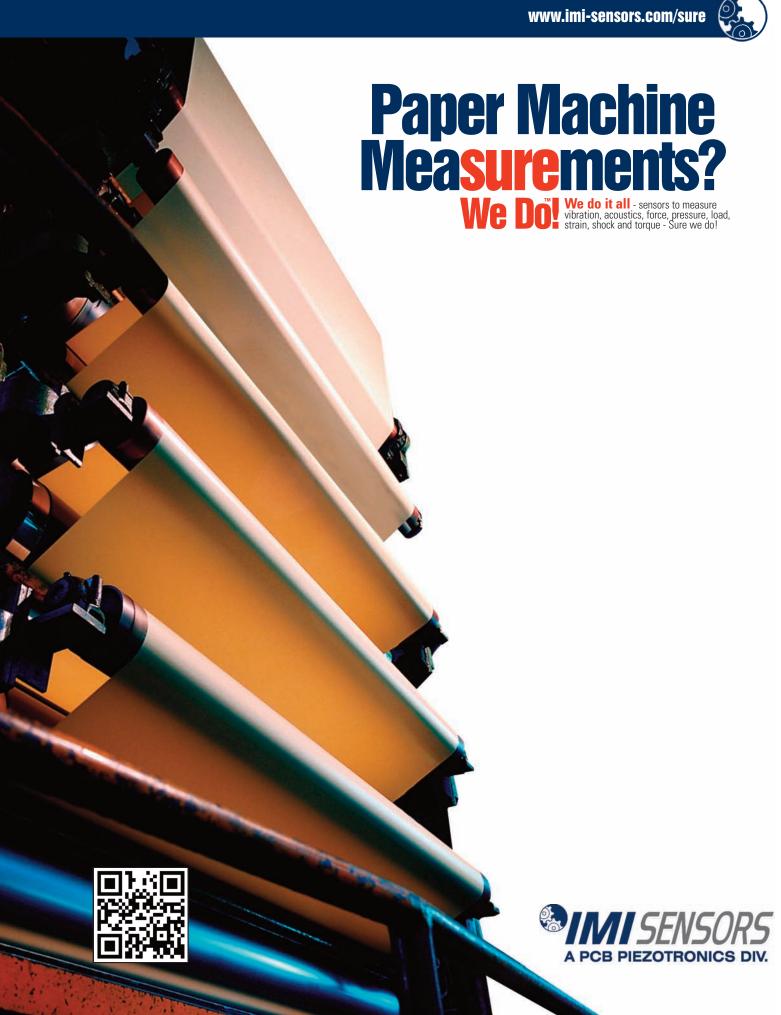




Recommended Components for a Typical Installation







Corporate Headquarters - Depew, NY



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- Paper Machines & Conveyors
- Combustion Dynamics Instrumentation
- Cooling Towers & HVAC
- Gearboxes
- Wind Turbine Condition Monitoring

- Oil & Gas Wells and Pipelines
- Vibration Screens & Feeders
- Reciprocating Machinery
- Machine Tool Spindles
- Steel Rolling & Annealing
- Rotary Screw Compressors
- Nuclear Power Instrumentation
- Shock Monitoring

IMI Sensors Platinum Stock Products represent some of our most popular models and can be used in a wide range of applications. As you browse this brochure, you will find Platinum Products indicated with the "Platinum Shield" icon (right).



Our Platinum Products are available with our Lifetime Warranty and fast delivery. If for any reason you are not 100% satisfied with your IMI Sensors Platinum Stock Product, we will repair, replace or exchange the product at no charge. For U.S. customers, all IMI Sensors Platinum Stock Products will ship within 24 hours. IF NOT, YOUR SHIPPING IS FREE!

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