



# Machine Tool Spindles

Eliminate the Guesswork, Use Vibration Trends  
to Change Tooling Efficiently

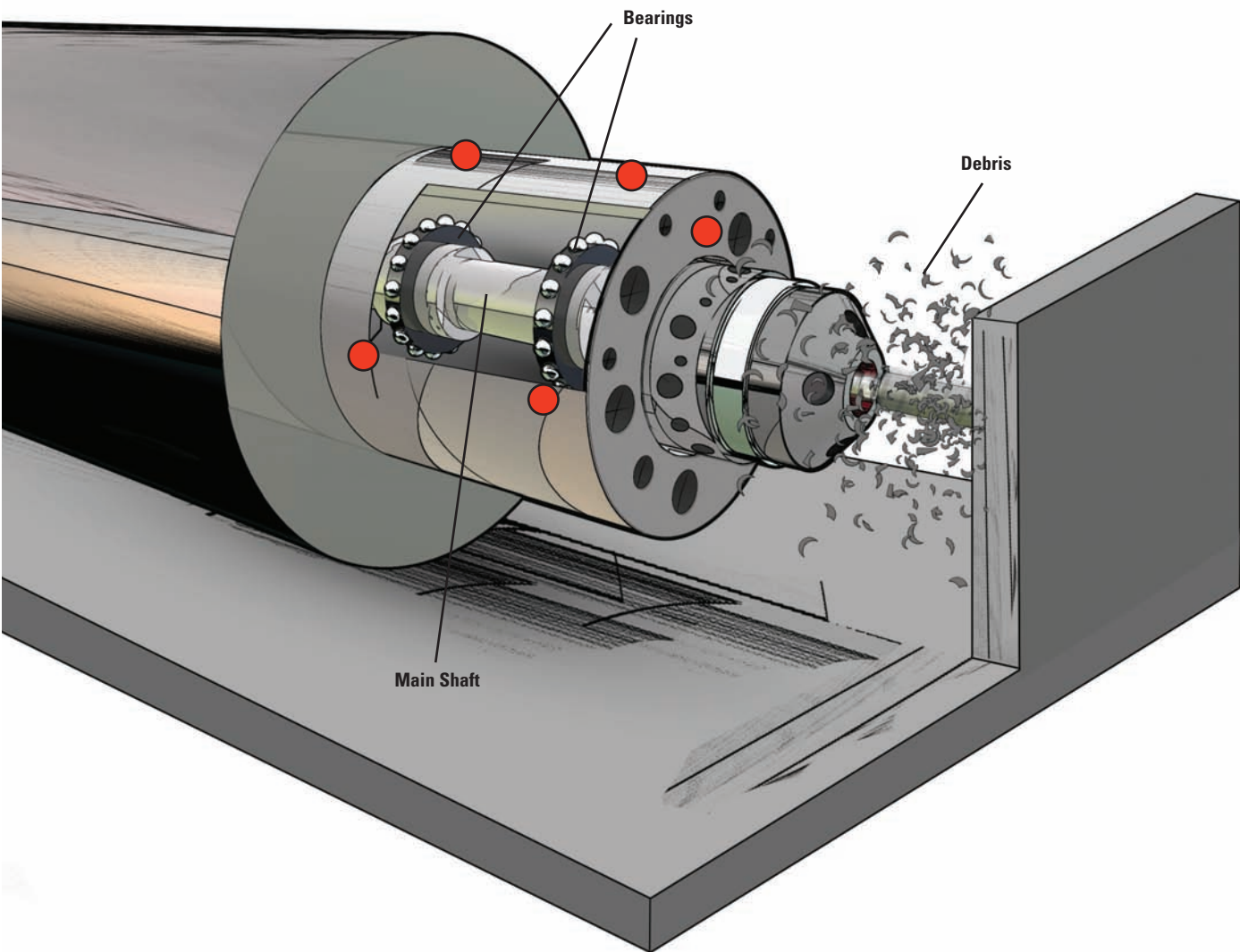


 **IMI SENSORS**  
A PCB PIEZOTRONICS DIV.

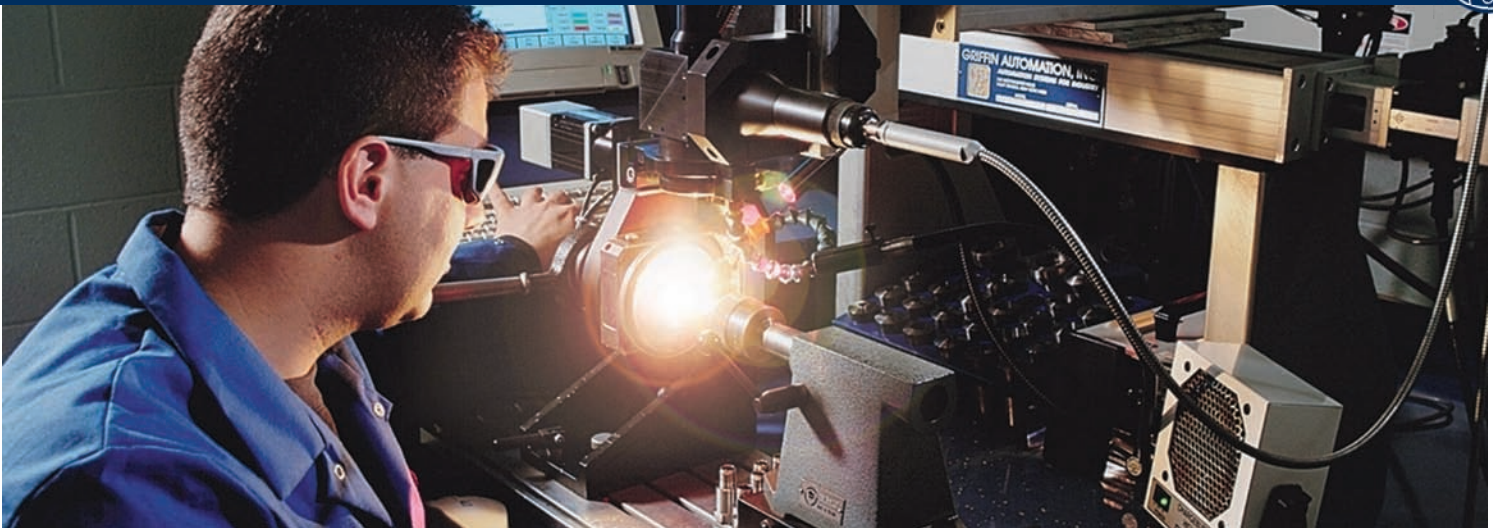
## Predictive Maintenance

# Machine Tool Spindles

Vibration monitoring of machine tools is useful for the analysis of tool life, tool integrity, part quality and preventing unexpected tool failure causing unscheduled downtime. Machining processes, like cutting, generate very high levels of vibration, therefore a 100 mV/g accelerometer or less is always recommended. Furthermore, cutting operations often leave the accelerometer exposed to large amounts of cutting fluids and razor sharp chips and metal scrap. To prevent damage, it is always recommended to utilize a sensor with integral armor jacketed cable in this environment.



 **Suggested Sensor Placement**



**ICP® Accelerometers - Predictive Maintenance**



**Low Cost ICP® Accelerometer**  
 Model 602D01, Model M602D01  
 Model HT602D01

- Easy installation in tight spaces
- No cable/connector clearance required
- Less than 1 in height
- M12 connector version available



**Low Cost ICP® Accelerometer**  
 Model 603C01, Model M603C01

- General purpose, hermetically sealed
- IMI's most popular accelerometer
- Small footprint
- M12 connector version available



**Low Cost ICP® Accelerometer**  
 Model 607A61

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



**High Frequency ICP® Accelerometer**  
 Model 623C01

- 15 kHz high frequency response
- 10 mV/g or 100 mV/g options
- Intrinsically safe models available



**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 625B61

- 5% sensitivity tolerance
- Through-hole mounting
- Intrinsically safe, velocity output versions

Complete specifications available at [www.imi-sensors.com](http://www.imi-sensors.com)

Toll-free in the USA 800-959-4464 716-684-0003



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# Machine Tool Spindles Accessories

## Cables & Connectors



**Armor Jacketed, PTFE Jacketed Cable  
with MIL Connector to Blunt Cut**  
048BPXXXBZ

XXX = Denote cable length, 010 = 10 feet (Metric lengths available)

## Mounting Hardware



**Sensor Mounting Pad**  
Model 080A93: Ø0.75"  
Model 080A118: Ø1.0"



**Flat Surface Magnet**  
Model 080A120: Ø0.75"  
Model 080A121 Ø1.0"



**1/2-20 to 1/4-28  
Mounting Stud**  
Model 080A156



**Spot Face Tools**  
Model 080A128  
Model 080A129

## Product Spotlight



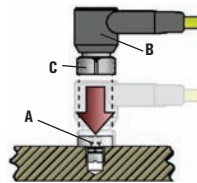
### Swiveler® & Spindler® Accelerometers

Model 607A11      Model 607A61  
Model 607A11/030BZ  
Model M607A11



This industry exclusive product is innovative in both its small size and its convenient swiveling mounting method

- Patented 360° swivel mount allows for convenient cable orientation (US Patent #6,435,902)
- Lower cost alternative to through-bolt sensors
- Very low profile for installation in tight spaces



Using the 360° capabilities of the Swiveler®, the cable is positioned into desired orientation & temporarily hand tightened. Using a wrench, the hex nut is tightened to the recommended torque while holding the cable or connector in the desired location.



Mounting hole is prepared into machine surface to accept sensor's mounting stud (A). Stud is then tightened to recommended torque with hex Allen key. Sensor (B) hex nut (C) is threaded onto mounting stud.

## IMI SENSORS

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