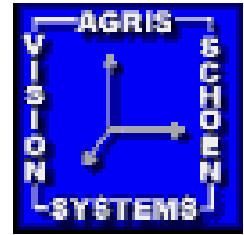


Automated Gauge Calibration.



MACHINE VISION CAN HELP...

- All gauges with visual displays, for example Automotive and marine gauges such as speedometers and tachometers, must be correctly calibrated by the assemblers prior to leaving the factory. The sample vision application shown below must accurately locate and track the needle of a tachometer through the RPM range (0 to 8,000). This process requires information feedback in real time.
- The objective of the application is to track the tachometer's needle using a camera and a sensor to read the input. GaugeCal first determines the center location of the tachometer either using the dial face or by sweeping the pointer and determining the center of rotation. GaugeCal then determines the angles/positions for both the pointer and the tick marks. This works for both rotary and linear gauges. The RPM positions are then calculated in angles and the application determines the angle of the 0 (zero) and maximum RPM positions. GaugeCal then calculates the angle of the pointer at any given moment, extracts the difference between the needle and zero position, and multiplies by the angle between two RPMs. The RPM value is then displayed on GaugeCal's user interface. GaugeCal also uses a sensor to determine the input value and compares the two. The user interface allows the operator to determine the acceptable tolerance. GaugeCal also works with non-linear displays (for example Radar Altimeters).
- GaugeCal works with tachometers, speedometers, pressure gauges, fuel gauges, torque displays, flowmeters, and practically displays of any kind.
- GaugeCal works with a wide range of inputs to the gauges: command data over a bus (e.g. the Automotive J-1850 bus), frequency, voltage, etc.
- A Machine Vision system from *Agris-Schoen Vision Systems, Inc.* can inspect every one of your products to ensure that it has been properly calibrated.



Call *Agris-Schoen Vision Systems, Inc.* for a demo at your facility and a price quote.

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