# DIAL INDICATOR
## CALIBRATION PROCEDURE #3

### ENVIRONMENT:

The environment must be relatively dust free. Clean surrounding inspection area with Citri-Clean, clean all inspection tools.

### A. VISUAL INSPECTION

1. Visually inspect the crystal for readability, nicks and general appearance.
   a) Inspect the body, point, spindle and backing plate.
   b) Inspect for missing components.
2. Clean the instrument with a clean lint free cloth (Citri-clean, WD-40 may be used as a cleaning aid).
3. Visually inspect the indicator for evidence of damage, inspect the point, spindle, main body, bezel/crystal assembly, spindle stop and backing plate.
4. Inspect the function of the indicator:
   a) Does the bezel rotate smoothly? Does it seat properly?
   b) Does the dial face turn with bezel? Does it slip?
   c) Is there any play between spindle/spindle guides?
   d) Does the condition of the crystal impair the ability to read?
   e) Does the spindle travel smoothly in both directions?

### B. CALIBRATION

1. Clean the granite surface plate with clean, dry, lint free cloth.
2. Clean magnetic base with clean, dry, lint free cloth. Check magnetic base for burrs. If evident smooth with a fine file and emery cloth.
3. Lightly tighten the dial indicator to magnetic stand.
4. Check magnetic base against top of surface plate for flatness. Try to wobble magnetic base from side to side and corner to corner, only 0 wobble is acceptable.
5. Adjust the dial so that the dial spindle is 90 o to surface plate in all directions.
6. Clean spindle point.
   a) Lower dial until spindle point makes contact with surface plate. When long and short needles are on “0” tighten clamps.

## C. CONSISTENCY AND ACCURACY TEST

1. Move the spindle from “0” - .990”, five times slowly and smoothly. Note: Do not bottom out the spindle in either direction. Allow point to touch surface plate record needle placing. Repeat this procedure three times with .250”, .500”, and .750” gauge blocks. Record readings on Inspection Report.