



Standard Operating Procedure: SOP-PIN-14

Coefficient of Restitution of a Bowling Pin

| <u>Rev</u> | <u>Date</u> | <u>Staff Member</u> | <u>Purpose</u> |
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| 1 | 5/17/11 | D. Nestor | Update for new software. |
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Purpose: To determine the coefficient of restitution of a bowling pin.

Materials:

- COR ramp
- Plexiglas sensor cage
- 4 sensors
- USBC COR-device capture software with Lenovo computer (or comparable)
- Brunswick LT-48 RB0281 bowling ball
- Test pins

Procedure:

1. Go to the computer. On the desktop, double click on the 'COR Project' icon.
2. If nothing happens go to My Computer and click on the 'P' drive. Once signed into the 'P' drive close the folder and repeat step 1.
3. Double click on COR Test 3-23-11.vi in the Project Explorer window.
4. Select Pin Test in the Test Type box.
5. Click the Run icon (it's the arrow in the upper left of the window).
6. Enter Pin Brand.
7. Enter Pin Model.
8. Enter Pin Number.
9. Make sure the sensor cage is lined up with the back corners of the COR ramp.
10. Align the testing pin against the metal angles on the level lane surface with the pin's model label facing towards the ramp.
11. Ensure that the last two sensors on the top of the cage are solid green. (If flashing, adjust accordingly until the light is a solid green).
12. Bring the bowling ball to the top of the ramp until it touches both vertical metal beams.



13. Press the black start button on the box under the ramp.
14. Release the bowling ball so that it rolls freely down the rails of the ramp and hits the pin.
15. Align testing pin against the metal angles on COR ramp and adjust the position of the pin approximately 36 degrees past its previous position.
16. Repeat steps 9-15 for a total of ten runs.
17. Close the program.

Generate the Test Report

18. On the desktop of the computer, double click on the 'Pin COR Database' icon.
19. Look at the left column and Scroll down to 'Print Master List' and click on it.
20. Look for the test just completed.
21. Enter COR numbers into appropriate pin testing threshold spreadsheet and save here:
P:\Specs and Certs\Testing\Pin Test Folder.