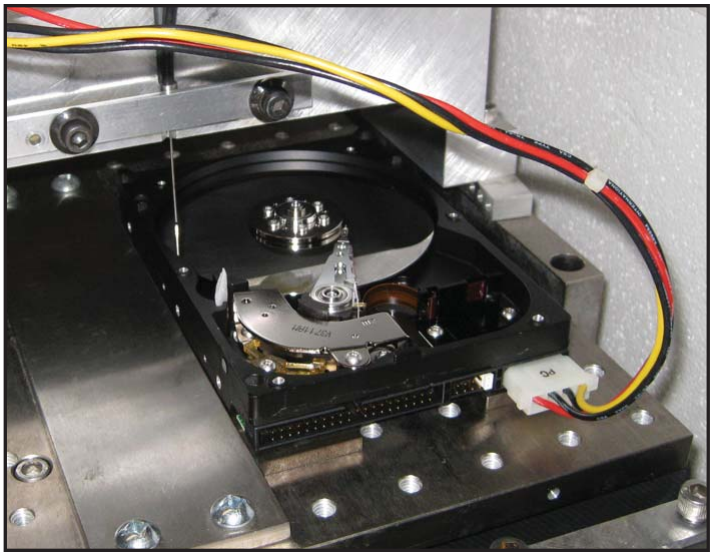
# HARD DISC DRIVE WOBBLE

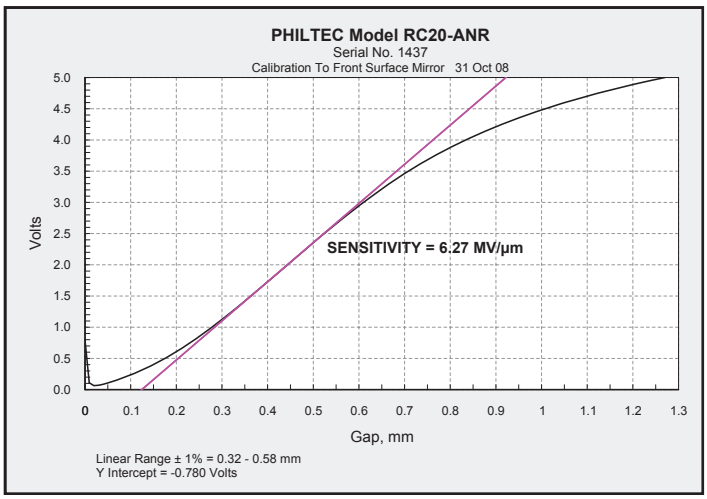
## THE REQUIREMENT

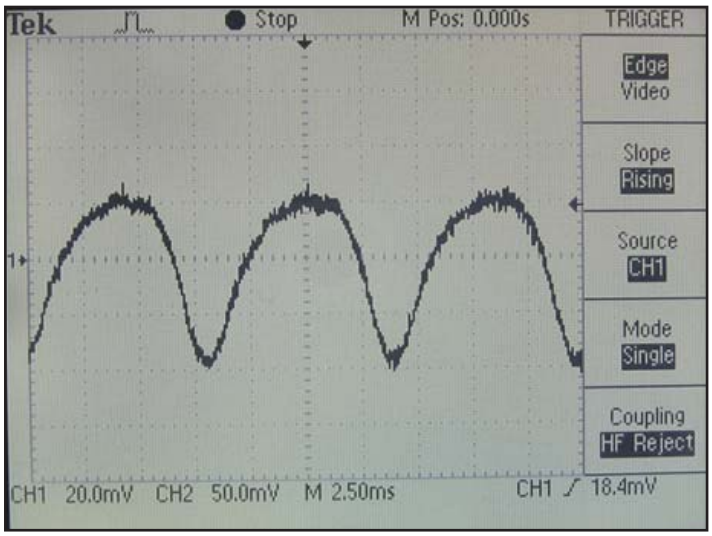
A customer inquired whether or not we could detect the axial runout (wobble) of a hard disc drive to establish a pass/fail criteria at ±20 µm pk-pk.



## THE TEST

The picture to the right shows a good hard disc drive with the cover removed. A Philtec model RC20 sensor is mounted above the disc at a gap of 0.5 mm. It has a sensitivity of 6.3 mv/µm.




## RESULTS

A live trace capture at full speed, ~7,000 rpm, shows a 60 millivolt pk-pk signal (CH1), about 10 microns pk-pk, with excellent signal-to-noise. Therefore, the model RC20 sensor is a very good candidate for this test requirement.