

## Superior **AccuTrak**<sup>®</sup> Contact Probe – FAQ's:

- Q: How do you get consistent readings with the contact probe on bearings from one reading to the next, at different times and/or with different people?
- A: There are a number of factors that go into obtaining consistent Touch Probe readings on the same bearing:
1. Angle – you want to press the Contact Probe against the surface as near to a right angle as possible (perpendicular to the surface). Pressing directly into the surface is the best way to get good firm contact. You will not obtain a good reading on an angle of less than 45 degrees (even with a centerpunch), and the closer to 90 degrees the better.
  2. Consistent Firm Pressure – a major variable is the pressure with which the probe is pressed to the bearing. As the pressure increases, the variation decreases, so the best way to get consistent readings is to apply firm pressure every time. How hard is “firm” can be determined by pressing harder until the reading stabilizes – once you reach the point where the reading does not change as you press harder, then you are pressing hard enough. It should be equivalent to several LBS pressure at least.
  3. Reading Location – it is critical of course to always take the reading at the same location on the bearing / housing. A good way to ensure this, and to assist with items 1 and 2 above, is to put a centerpunch mark on the surface, and circle it with a permanent marker or paint marker. By placing the probe tip in the centerpunch you ensure consistency of location, and it is easier to apply pressure without slipping off, especially when a full right angle reading is not possible.
  4. Hand Position – most technicians will find it easier to apply consistent pressure when holding and pressing the instrument at a right angle to themselves, with the instrument display facing them. Holding the instrument flat in the hand and pressing by extending the arm straight out from the body is less likely to give consistent readings.
- Q: We have all the same type and brand of bearings, and they are all new, yet we get different readings from one to the next – is there something wrong with the instrument?
- A: This is perfectly normal. Even brand new bearings that are “identical” have variations from one to another, and will normally have some variation in their readings that **AccuTrak**<sup>®</sup> instruments are sensitive enough to easily pickup. After you take a number of readings you can easily establish the “normal” range for your application, and when you have a “bad” bearing it will typically fall well outside that range.

Q: We are doing trend analysis on bearings, and the reading on one has begun to go up – how do we know when to replace the bearing?

A: There is no “magic number” that means a bearing is bad, regardless of what some people may say. Every bearing is different, and every application is different, so what matters is the change in the reading that you obtain. Certainly an increase in the reading is a concern that warrants closer attention. It may just be that the bearing needs lubrication, so be sure to address this possibility first (see our instructions for using **AccuTrak**<sup>®</sup> to lubricating bearings). If that is not the cause, then we recommend this procedure:

1. Monitor the bearing in question more frequently, and make sure to get a replacement on hand. **AccuTrak**<sup>®</sup> instruments give the earliest indication of bearing deterioration of any monitoring method, so failure may be weeks or months away, but you need to be prepared in case there is a rapid progression to failure.
2. If the bearing is critical to operations and/or a major job to replace, then you may want to schedule replacement at the earliest convenient opportunity, to play it safe.
3. A slow and consistent increase in readings indicates the bearing is degrading, but unless there are other indications of failure it is likely not yet in terminal failure mode.
4. When the curve of increasing readings becomes significantly steeper (readings go up more rapidly) then the bearing is likely in terminal failure mode, and needs to be replaced ASAP. This more rapid change in readings is a clear indication of impending failure.
5. With experience, and analysis of readings of a number of bearings as they fail, you should be able to more accurately predict the “typical” failure profile for your application, and fine-tune your monitoring procedure for optimum results.