We take due diligence to the highest level on all projects regardless of size or budget.

Learn About Articles
You can download educational articles from our home page at www.vibescorp.ca. Here are four recent articles:

- Electrically Induced Bearing Damage, aka Electrical Discharge Machining (EDM), Shaft Currents.
- Failure Prevention of Variable Pitch in Motion Axial Fans.

The photos below show typical projects that we have completed.

Fig 1. The failure was due to defective bearing.

Fig 2. The stainless steel guard helps prevent moisture contamination in cooling tower fan bearings (a very common problem).

Fig 3. A new fan was installed due to a complete failure of the original.

Fig 4. Shows a 200HP motor and fan repair/replacement.

Solution to Fig. 1
Replaced both Fan Bearings

Solution to Fig. 3

Solution to Fig. 2
The Guard has prolonged the Life Span of the Fan Bearings from 3 years to over 14 years.

Solution to Fig. 4
Replaced the Old Motor based Variable Pitch in Motion Fan Maintenance.

This Chart is based on ISO 10816-3

VIBRATION SEVERITY GRAPH FOR GENERAL ROTATING MACHINERY

AMPLITUDE

DISPLACEMENT Mils (x.001") peak to peak

Displacement 1 mil = 25 microns

VELOCITY (ips = in./sec) peak

VERY ROUGH DANGER

ROUGH

SLIGHTLY ROUGH

FAIR

GOOD

EXCELLENT

UNACCEPTABLE

ISO STANDARDS

BEST CONDITION

VIBRATION ANALYSIS

VELOCITY, DISPLACEMENT, ACCELERATION

VELOCITY FOR ACCEPTABILITY - DISPLACEMENT FOR BALANCING

ACCELERATION FOR BEARING HEALTH CONDITION MONITORING

REFERENCE POINT ● = 1800 rpm machine/ motor excellent condition

ACCELERATION or FORCE OF GRAVITY “G” (ips² = in/sec² for simplicity)

ACTUAL G = 32 fps/s = 9.8 m/s/s