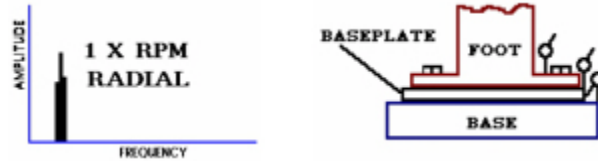


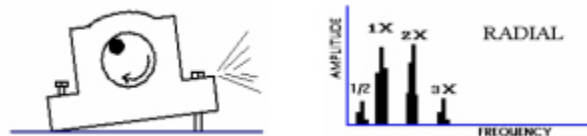
MECHANICAL LOOSENESS

MECHANICAL LOOSENESS (A)



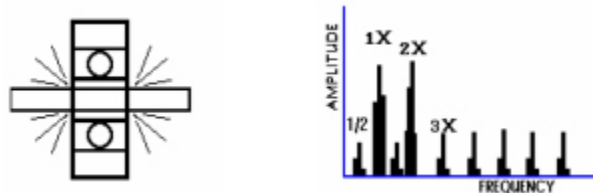
- Caused by structural looseness of machine feet
- Distortion of the base will cause “soft foot” problems
- Phase analysis will reveal approx 180° phase shift in the vertical direction between the baseplate components of the machine

MECHANICAL LOOSENESS (B)



- Caused by loose pillowblock bolts
- Can cause 0.5, 1, 2 and 3X RPM
- Sometimes caused by cracked frame structure or bearing block

MECHANICAL LOOSENESS (C)



- Phase is often unstable
- Will have many harmonics
- Can be caused by a loose bearing liner, excessive bearing clearance or a loose impeller on a shaft