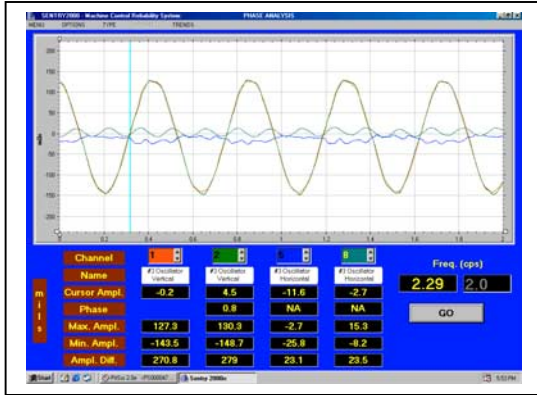
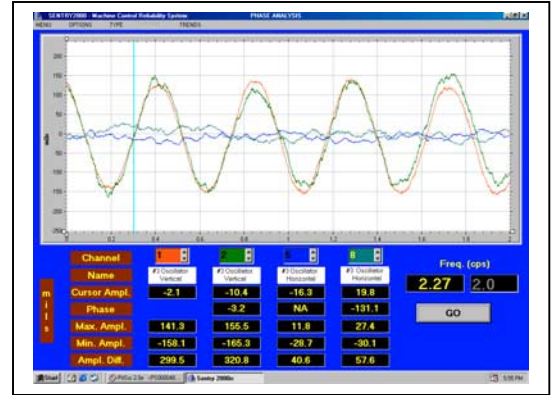


# Oscillator Condition Test

#3 Oscillator

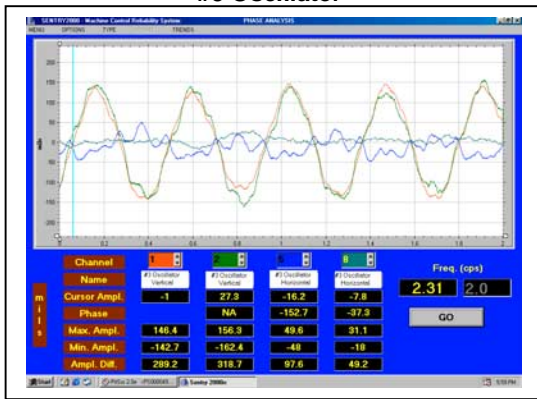


#3 Oscillator



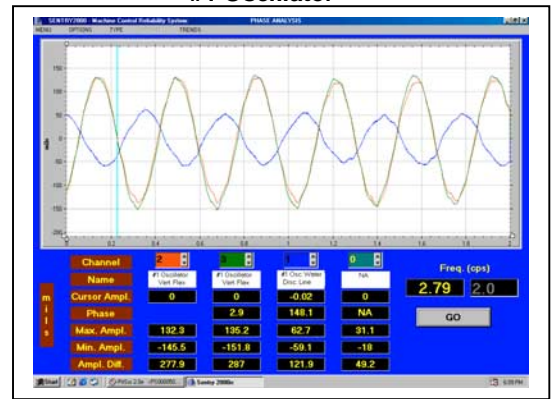
Hoses connected – water turned on – Not casting

#3 Oscillator



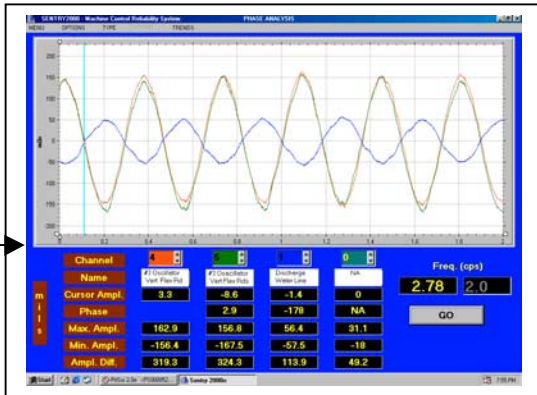
Casting

#1 Oscillator



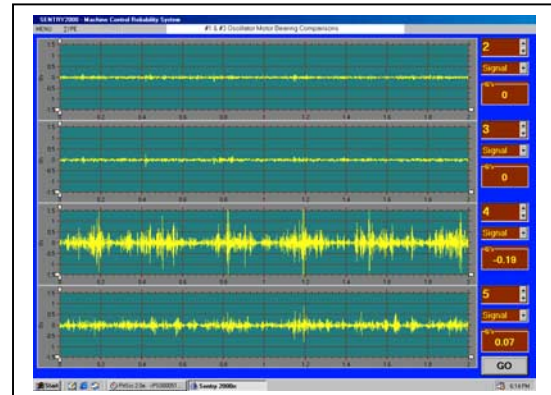
Casting

#3 Oscillator



Casting

#1 & #3 Oscillator



Oscillator Motor Bearing Comparisons - Casting

Data indicates that the mechanical stiffness of the water hoses used on these systems, coupled with additional stiffness of these hoses when water pressure is applied, to provide cooling water to the molds, has the effect of destabilizing the mold operation and is the predominant cause of the existing out of tolerance conditions.

**RECOMMEND** review all machine specifications for oscillators paying particular attention to flexibility standards required for water supply and discharge lines as related to operational stability of oscillator machinery.

Motor and gearbox waveform data indicates that the inboard bearing on motor #3 has a defect

**RECOMMEND** lubricate motor bearings, change out drive motor at 1<sup>st</sup> opportunity.