

Discipline Function		VM Required Instrumentation (Effective January 1, 2019)					
			RANGE	ACCURACY	RESOLUTION	Notes	Calibration Requirements
Vibration Instruments	Vibration Analyzer / Meter, Real Time Analyzer & Spectrum Analyzer		Shall meet the minimum requirements as specified below: Displacement – 0.1 to 100 mills (0.0001 to 0.1 inches) Velocity – 0.0005 to 10 in/sec Acceleration – 0.0001 to 30 G's Frequency Range – 1 to 1000 Hz (60 to 60,000 RPM) Frequency Resolution (bandwidth) – at least 1.25 Hz (1 / 75 RPM) Minimum Lines of resolution ≥ 800 Detection - Peak, Peak-to-Peak, RMS FFT Windowing- Hanning at least Averaging – exponential or time and selectable to at least four averages			*4	12 Months
	Accelerometers / Transducer		Shall have the following minimum specifications: Sensitivity (± 10%) ≥ 100 mV/G typical Measurement Range = ± 20 G peak Frequency Range = 2 to 3000 Hz at ± 5%				12 Months
NOTES *1 CPT Option - choose only Option 1 OR Option 2 - along with required instrument for CPT certification (All instruments in any of the chosen is required) *2 FHT Orifice Calibrator - Choose only one *3 Refer to Appendix A for complete instrumentation requirements for Sound Measurement (SM) *4 Firms may own or rent vibration equipment instrumentation for vibration certification *5 Calibration Requirement: Data logger calibration may be verified from a calibrated instrument with an associated calibration form showing calibration readings from both the calibrated instrument and the data logger. If a data logger is out of calibration and cannot be adjusted, the logger must be sent back to the factory for re-calibration or be replaced General Note: Some local jurisdictions require qualified electrician for any electrical readings Calibration Requirement: Instruments require NIST Traceable calibration or National Metrology Institutes (NMI) which exist in many countries maintaining primary measurements of standards; such as NPL in the UK, PTB in Germany and many others which are approved for those regions.							