



SEEING IS
BELIEVING

IRIS  **M**
Enhancing Vision

Motion Amplification® Introduction Day

One of the best ways to “see with your own eyes” RDI’s Iris M™ Motion Amplification® (MA) system is by running a Motion Amplification® Introduction Day at your facility. Demonstrable value is very evident when MA is utilized for the right application. OMT is a Certified Service Provider and our instructors are experienced machinery monitoring practitioners, who offer practical, real-world solutions.

INTRODUCTION DAY OUTLINE (Duration ~7hrs on site)

- 🕒 **08:30** – Arrive on site. Escorted visitor induction. Acquire MA footage on select plant assets

We suggest 2 – 4 assets, maybe more. Different applications are recommended, i.e. rotating equipment, structures, pipework, slow speed etc. As a rough guide MA works best on low to medium frequency fault types as per the list below. Asset needs raised vibration levels, i.e. above 4mm/sec RMS to visualize motion or low frequency problems with raised displacement levels. If very low amplitudes of motion are present, there won’t be much to see even when amplified so the most appropriate assets must be selected for testing.

- 🕒 **13:00** - Process and analyse data, prepare your videos for presentation
- 🕒 **14:00** – Technical presentation on MA in a booked conference room with invites sent out to key stakeholders, engineers, managers, fitters, CM technicians etc. Presentation typically takes 1 hour.
- 🕒 MP4 MA videos from the day are supplied to client





SEEING IS BELIEVING

FAULT TYPES THAT CAN BE VISUALISED...

IRIS M™, Standard Camera

Frequency range 0-50Hz in FHD

- ⊗ Piping Vibration
- ⊗ Reciprocating Engine and Compressor motion
- ⊗ Unbalance
- ⊗ Misalignment
- ⊗ Soft foot
- ⊗ Structural looseness
- ⊗ Resonance
- ⊗ Structural cracks
- ⊗ Duct and Vessel wall deflections
- ⊗ Structure stiffness and support
- ⊗ Torsional twisting, bending and flexing
- ⊗ Excessive transient loading
- ⊗ Ineffective damping
- ⊗ Vibrating screen motion analysis
- ⊗ Oscillating motion analysis
- ⊗ Cavitation, hydraulic and aerodynamic forces
- ⊗ Drive transmission faults, belts, chains, couplings, cardan shafts...

IRIS MX™, High Speed Camera

Frequency range 0-700Hz in FHD

- ⊗ Everything on the left plus...
- ⊗ 2-pole motor driven equipment misalignment (2x)
- ⊗ Steam Turbine 1x and 2x
- ⊗ Gas Turbine 1x and 2x
- ⊗ High Speed Pump 1x and 2x
- ⊗ High Speed Compressor 1x and 2x
- ⊗ Pump vane pass
- ⊗ Fan blade pass
- ⊗ Screw compressor lobe pass
- ⊗ Small-bore piping assessment
- ⊗ Mill gearmesh
- ⊗ Low speed bearing defects...