RVA synergies Solutions for Remote Visual Assessment

Series 10 – Endoscopes with Mirror Tubes

General Information

Endoscopes with mirror tubes are designed with versatility in mind, as the effect of up to 4 different endoscopes can be gained from just one instrument. The basic endoscope is supplied with a protection tube for 0° forward viewing. This protects the objective tip from direct impacts. By the use of additional mirror tubes, the angle may be altered: 70° steeply angled forward, 90° side viewing and 110° retro view. Each mirror tube shaft may be rotated 360°.

Handling

Endoscopes are precision instruments that require careful handling and care. Before starting to use the endoscopes, please read the following instructions.

Operation

Connect a suitable light source to the input connector on the main body of the endoscope. This may be a small LED hand held light source, or a bench-top mains powered source. The input is industry standard and most light sources and light guide cable arrangements can be used. If you are not sure about which light source is most suitable for you, please contact RVA Synergies for assistance.

The endoscope is now ready for use. The focus can be individually adjusted to suit the eye of the operator. The range in which clear, sharp images can be achieved is from 0.5mm to infinity. The endoscope may now be introduced into the workpiece. By turning the mirror tube, all regions of the workpiece can be inspected. It is not necessary to turn the whole endoscope.

Always use the protective tube when making forward viewing inspections so that the lens is not damaged by 'stubbing' into the workpiece. To change the viewing direction the protective tube is pulled off and and a mirror tube is pushed in its place. The tube should be pushed on until it stops, and clicks comfortably in position. Each tube has the direction marked on the fitting.

Care of your endoscope

External parts of the endoscope may be cleaned with a suitable cleaning fluid such as Isopropyl Alcohol. The lens and mirror can be carefully wiped clean using commercially available lens cleaner or the supplied solution to dampen a cotton bud. To remove dust particles, use a lens blower brush.

Repairs

If the endoscope image becomes blurry or unclear, there may be a defect. If the endoscope is not fully useable, please return it to RVA Synergies for assessment.