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Inspection Photography - Ultra HD Photographic NDT

Inspection Photography in non-destructive testing (NDT) is used to perform inspections of difficult-to-access installations and NDT inspections which have traditionally been extremely high-risk. Inspection photography can now deliver many of these inspections from the safety of the ground using high-definition photography when important decisions need to be made with an accurate ultra-high definition NDT photography.

THE Applus+ SOLUTION

The NDT inspection photography at Applus+ delivers images from some of the most powerful cameras and highest-clarity lenses available on the professional market. With this exceptional equipment, we offer our customers the opportunity to perform photographic inspections from a great distance away, yet still retain exceptional clarity.

Applus+ utilises ultra-long-range camera lenses and professional-grade 50-megapixel camera bodies to take amazingly clear, well-defined images of assets that could be hundreds of metres away. The inspection photography captures these high-resolution images that can be joined to form gigapixel image files. These gigapixel images produce a seamless, ultra-high-definition image that may consist tens – if not hundreds – of individual images.

This allows the NDT inspector and customer to view the asset as a single image, avoiding the need to review hundreds of photos separately. The user can zoom in and out of the joined image without losing the sharpness of the raw data.

Here's an illustrated example. To collect images of a 120m (400 foot) communication tower, a user could zoom in on the resulting joined-image and see the thread of a bolt at the very top of the tower with perfect clarity. In fact, the inspection photography can be

pushed even further – we have counted the number of threads on a bolt situated at the top of a 300m (1000 foot) chimney, photographed from the ground.

Ultra-high-definition technology can be used for any inspection photography task, irrespective of the shape and size of the asset. It is an extremely cost-effective, safe and efficient way of inspecting large and complex assets.

Target customers

Inspection photography is used extensively in many industries, for example to inspect:

- Large communication towers
- Large vessels or tanks
- Bridges
- Flare towers (surveys from the flare tip all the way down to the base)
- The external surfaces of buildings (deterioration surveys)
- Large wind-turbine blades

Key customer benefits

The NDT inspection photography at Applus+ offers ultra-HD photographic inspections to deliver many obvious benefits to numerous industries.

Firstly, NDT inspection photography can dramatically reduce the risk profile of an NDT inspection by substituting working-at-height with a safe, ground-based methodology.

Our remote access NDT methods can also dramatically reduce costs since only a small inspection team is required, with minimal equipment and very short set-up times. The NDT photography equipment is small and lightweight and can be transported anywhere – including offshore, such as on flare towers and bridge inspections.

The inspection photography at Applus+ can capture 100% of an asset's condition, with the photographs creating a record of the condition of a structure at a given point in time for comparison with future NDT photographic inspections. The highly detailed photography can also be used for future asset planning, modification, expansion, or maintenance work.

Due to the fast, cost-effective nature of Applus+ methodologies, clients no longer need only to perform sample inspection photography of assets as our technology can easily provide 100% coverage surveys rapidly while keeping costs to a minimum.