

INSPECTION RANGE

- TUBE SIZE** 7mm - 100mm (0.27" - 5.9") diameter
- LENGTH** Up to 25m (82'), if inspected from one end
Up to 50m (164'), if inspected from both ends

DETECTABLE DEFECTS

For 8mm - 63.5mm ($\frac{5}{16}$ " - 2 $\frac{1}{2}$ ") tubes

- HOLES** Minimum diameter 1mm (0.039")
- BLOCKAGES** Minimum of 5% of cross section
- EROSION & PITTING** Minimum of 10% of wall thickness

For 63.5mm - 100mm (2 $\frac{1}{2}$ " - 4") tubes

- HOLES** Minimum diameter 3mm (0.118")
- BLOCKAGES** Minimum of 10% of cross section
- EROSION & PITTING** Minimum 20% of wall thickness

TUBE CONFIGURATION

Any configuration including:
U-bends, finned tubes, twisted tubes, multiple bends and spiral wound tubes.

TUBE MATERIAL

Any material including:
Metals (ferrous and non-ferrous) & non-metals (graphite, composites)

INSPECTION SPEED

10 seconds per tube
(depending on tube size, length and configuration)

ALGORITHM

Patented Acoustic Pulse Reflectometry (APR) technology
featuring specialized, proprietary algorithms for NDT inspection.



TALCYON



HARDWARE

Compact handheld device

Non-invasive probe assembly including a transducer, microphone, controls, LCD screen and adaptors to fit tubes of any internal diameter up to 150mm (5.9"). Customized extensions (optional) for easy access to tube openings in challenging situations such as air cooler headers, hand holes for super heaters, economizers.

SOFTWARE

Data Acquisition Software

External notebook/laptop computer connected to handheld device. Sophisticated APRIS software installed in computer shall be utilized for inspection setup, probe status monitoring, test data recording.

PORTAL

Exclusive for interactive analysis using sophisticated algorithms based on artificial intelligence & deep learning which assist to generate quality and intuitive report based on user needs.

Seamless interaction among service providers, asset owners and manufacturers to enhances the user experience to track the inspection activities, reports and other support pertaining to inspection.

REPORTING

Customizable, graphical online reports.
(Output: PDF or HTML)

PHYSICAL CHARACTERISTICS

Compact, rugged and lightweight design.

TOTAL BOX WEIGHT 14.88 lbs (6.75Kg)

BOX DIMENSIONS 450 L x 320 W x 200 H (mm)
(17.7" x 12.6" x 7.8")

POWER INPUT

Dual voltage system (110V/220V)

TEMPERATURE RANGE

-10°C to +50°C (14°F to 122°F)

CERTIFICATIONS

CE Declaration of Conformity;
Safety Certificate IEC 61010;
EMC Test Certificate;
Company Quality System
certified to ISO 9001:2008

STANDARDS

ASTM E2906/E2906M-18
ASME BPVC.V-2019-Article 18