



UT_ROVER

YOUR TANK ROOFS ASSISTANT

Tank roofs inspections implies confined space entry and EX area risk exposure. Especially when it's about sending operators inside the double-decks. Fixed roofs are challenging to inspect also, when they show high curvature, unknown thickness, moss and residues, lack for guardrail...

As a result, the risk management documentation, preparation meetings, specific training and coordination can make the project workload bloom. And the residual risks are still present.

The UT_ROVER has been designed to prevent man entry for floating and fixed roof inspection. It has been designed, developed and qualified in close partnership with HSE & inspection of key asset owners.





KEEPING THE CONTROLLER SAFE

UT_ROVER is a single-man portable magnetic crawler, tele-operated by the controller from a safe area. Its custom-designed magnetic system allows it to climb 10% curved plates covered with moss, and to cross lap welds. The EX risk is taken into account in a complete study and integration. The UT_ROVER integrate different modules to perform VT, UT with A-scan & B-scan, vertical A-scan module and brushes for moss removal.

CHARACTERISTICS

- **Fast** : 20cm/s,
- **Strong** : rugged and weatherproof,
- **Safe** : 100m for UT,
- **Adaptable** : UT, VT, moss removal,
- **Accurate** : uncompromised ultrasonic resolution on difficult surfaces.



USE CASES

The UT_ROVER has been designed to perform inspection on in-service fixed and floating tank roofs. It's remote capacities made it interesting to inspect inside a capacity where the no man entry is required. It is compatible with EX environment and can be adapted to your HSE requirements.



For a safer world.



SPECIFICATIONS

INSPECTED SURFACE

- Metal : Carbon steel & Stainless steel
- Wall temperature : from 0°C to 100°C
- Plate thickness : 2 - 50mm
- Max coating thickness : 1mm
- Maximum curvature : 10%

CARRIER

- Dimensions : 44x58x42cm
- Lightweight : 14kgs
- Water resistant, IP67
- Rugged connectors
- Encoding precision : 0.1% FS

WATER TANK

- Capacity : 5L
- Applications : UT couplant & cleaning
- Autonomy : 120m for B-Scan

BATTERY

- Tension : 24V DC
- Integration : away from EX area
- Autonomy : 5h

OTHER PAYLOADS

- UT 100m
- VT 1km
- Wireless/umbilical
- Gas detector
- HD or ultra HD cameras
- Brushes
- Teleoperation - 4G covered areas
- Ex environment compatible

ULTRASONIC MEASUREMENTS

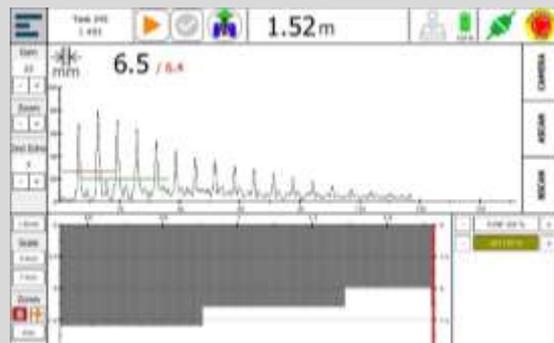
- Sensors type : UT, dual Emission/Reception
- Standard precision : +/- 0.15mm
- Frequency/Diameter : 5Mhz/13mm
- Voltage : 0V - 200V
- Sampling frequency : 80Mhz
- Adjustable gain : 0 - 60dB
- Visualization : A&B-scan display
- Reporting : automated excel generation
- Post inspection data modification

Acquisition

- Hardware : Panasonic CF31 or CF19
- Gates : Adjustable
- Display : A&B-scan, real time
- Date record : A&B-scan
- Save format : .csv ; .jpg

OPERATING CONDITIONS

- Operating temperature : from 1° to 40°C
- Wind : <10knts
- Rain : <0,5mm average/day





ABOUT US

ROBOPLANET develops NDT equipment since 2008 in a wide range of industries : Marine, Defense, Energy and Heavy Industry. We aim to provide safe, performant and cool equipment for NDT teams in their daily jobs. 14 years of experience, feedback and partnership with key asset owners and field experts allow us to build the future of NDT.

OTHER PRODUCTS

- **ALTISCAN V2** : remotely controllable magnetic crawler,
- **UT POLE** : 12 m range telescopic pole for NDT operations,
- **Software** : automated data recording and analysis.

REFERENCES



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