



# Technology-Based Asset Integrity Assurance

## Introducing ARCUS



Clients



Schlumberger



Saipem



Seadrill





## Products & Services

### What is ARCUS Inspect?

- Inspection, Management and Maintenance Framework
- Utilises RFID to positively identify and record assets
- Provides auditable and consistent inspections
- Cloud synchronisation for on-shore visibility
- Specifically developed for fragmented workforces in hostile work environments
- Can operate with no Internet connectivity
- Flexible, bespoke features accurately fit your business



## Products & Services

### ARCUS Options – Enterprise Edition

- Very powerful and scaleable solution
- Synchronisation to on-site server
- Support multiple tablets and multiple applications per rig
- Ability to simultaneously support all applications per tablet
- Available with with Zone 2 or Zone 1 tablet
- Integrates into 3<sup>rd</sup> party/social network or corporate network
- Can integrate into SAP, Oracle, JDE, Maximo and Infor M3
- Local site reporting or cloud reporting
- Very efficient use of bandwidth
- Unlimited technical support



## Products & Services

### ARCUS Options – Lite Edition

- Very cost-effective entry into ARCUS Suite
- Synchronisation direct to cloud using 3<sup>rd</sup> party or social network
- Support for single tablet per rig
- Supports single application per tablet  
(DROPS, LGI, EX, Hose, BOLT, BOP or PRV)
- Supplied with Zone 2 tablet
- Supplied with 500 RFID tags
- Additional tags and Bluetooth wand also available
- Technical support (10 hours)



## Products & Services

### Hardware

- Local and Cloud Infrastructure
- ATEX1 and Class1 Div1 Tablet & Handhelds
- ATEX2 and Class1 Div2
- RFID Scanning Hardware
  - Fixed Gate Readers
  - Handheld readers for use with mobile devices

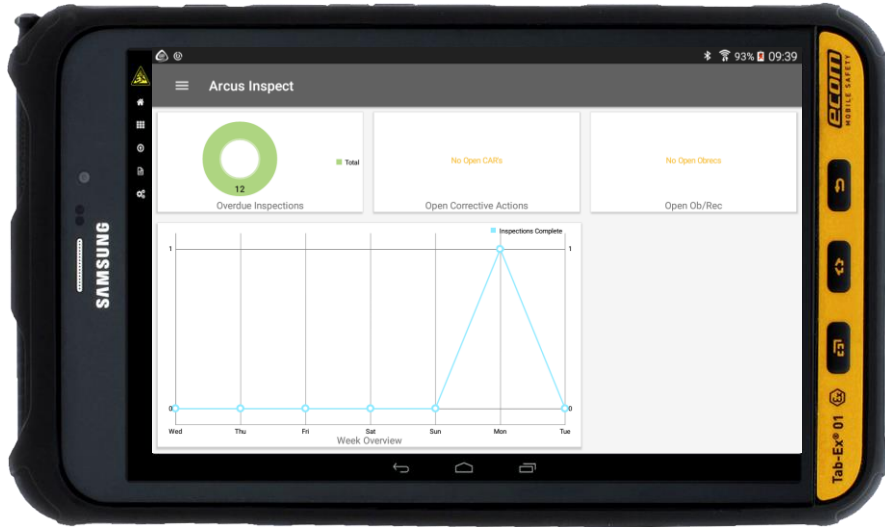
RFID Tags (LF/HF/UHF)





## Products & Services

### ARCUS-DROPS Highlights, Features & Benefits



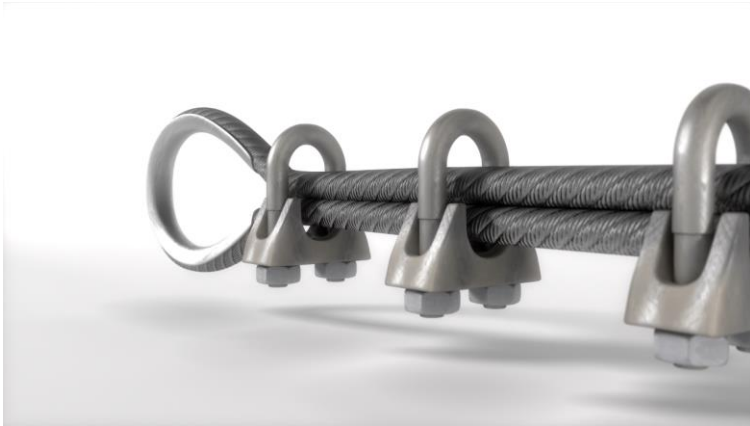
- Detailed recording of potential DROPS
- Analysis of safety securing and retention
- Raises awareness of dropped objects
- Proven to reduce dropped object incidents
- Better rig efficiency and maximum uptime
- Safer working environment
- Management of corrective actions





## Products & Services

DROPS E-Learning

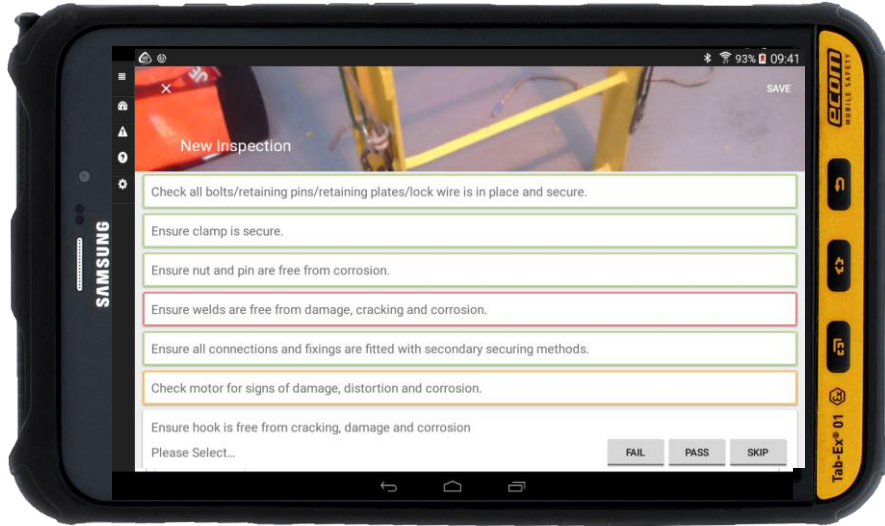






## Products & Services

### ARCUS-LGI Highlights, Features & Benefits



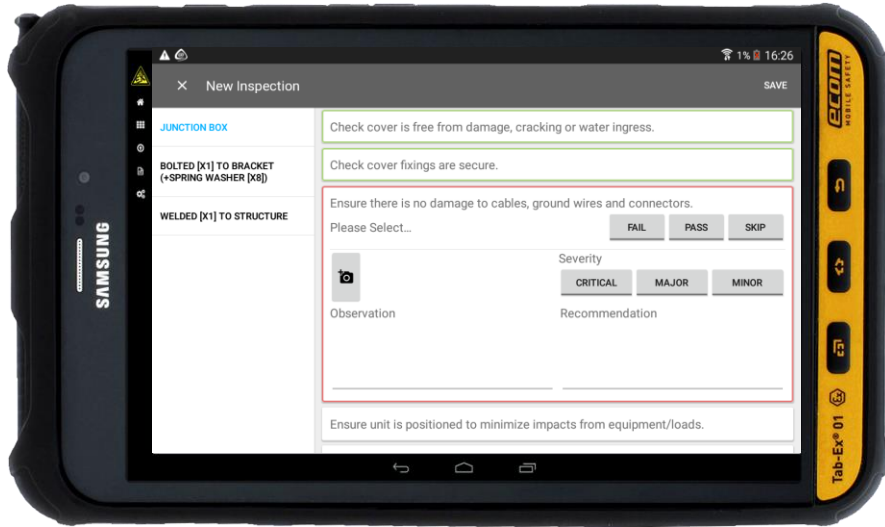
- Supports loose lifting gear, cranes, winches
- Precise and consistent inspection quality
- Direct inspection input on-board
- Synchronises to cloud for total visibility
- Corrective action management
- Aligns to LEEA, LOLER, API, NSL etc.
- Certificate and report generation





## Products & Services

### ARCUS-EX Highlights, Features & Benefits



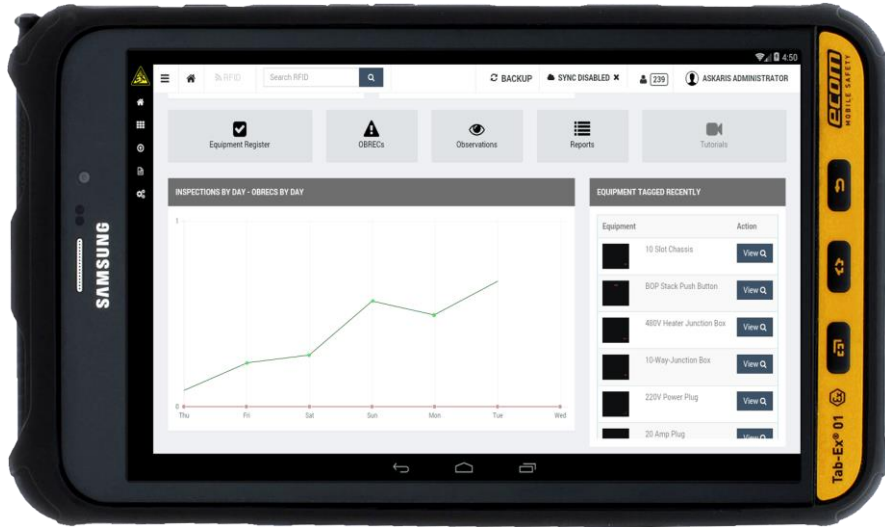
- Detailed recording of EX Assets
- Inspection compliance with EX-D,E,I,N & P
- Uses RFID for positive identification
- Consistent inspection standards
- Can be used in conjunction with IRT
- Less chance of equipment failure
- Photographic evidence





## Products & Services

### ARCUS-HOSE Highlights, Features & Benefits



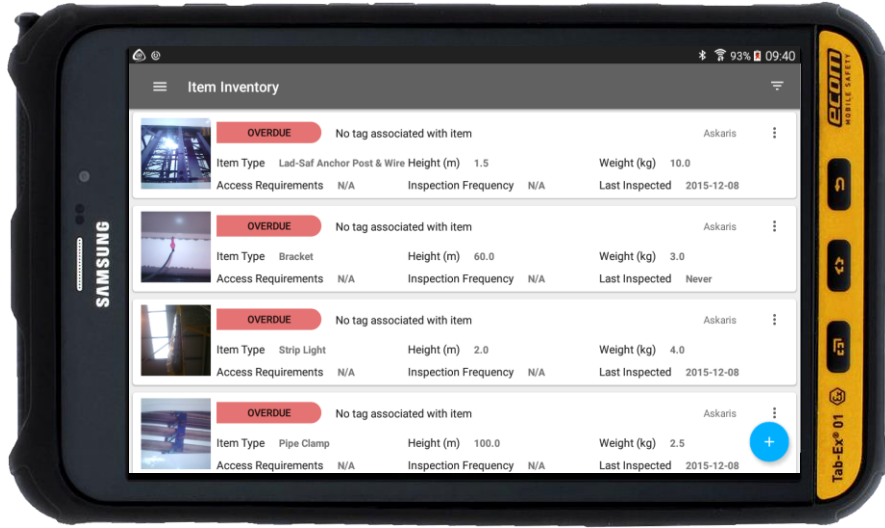
- Full hose register
- Supplier and inspection history
- Supports multiple RFID tags per asset
- Dimension and flange specifications
- Manages pipe thickness and tolerances
- Analytics allows predictive maintenance
- Integration into ERP





# Products & Services

## ARCUS-BOLT Highlights, Features & Benefits



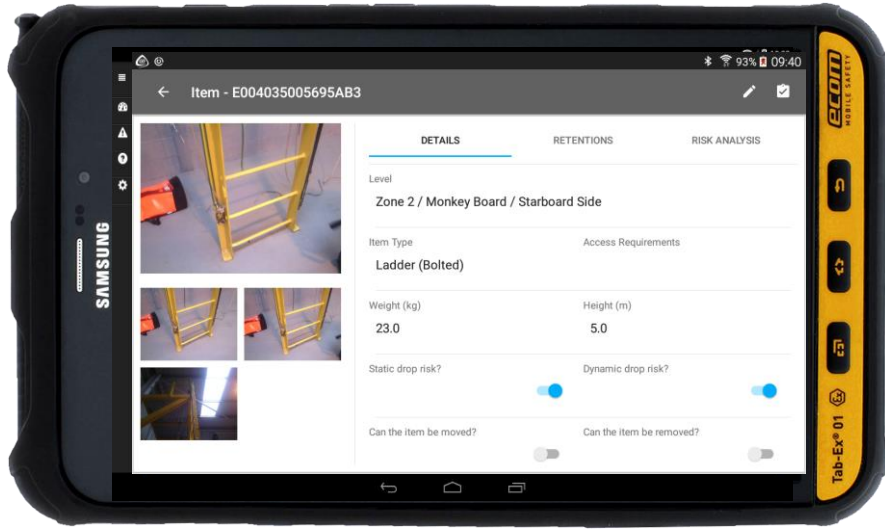
- Manages bolt inspections
- Single tag references bolt grouping
- Consistent inspection process
- Photographic location evidence
- Colour code support
- Supports visual, tap-test, torque etc.
- Supports up to 20%/5 year rolling review





## Products & Services

### ARCUS-BOP Highlights, Features & Benefits



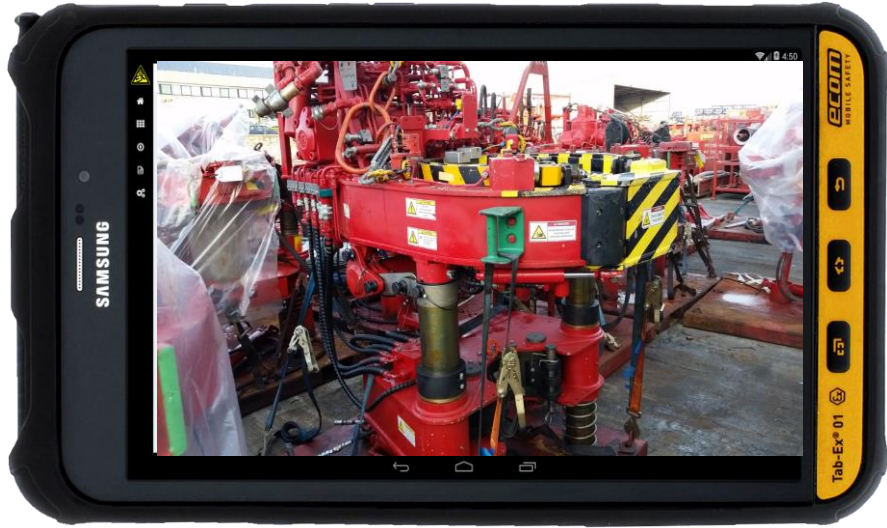
- Detailed recording of BOP sub-assets
- LMRP sub-assemblies (hoses, valves etc)
- Very robust tagging requirements
- RFID Tags proven to 10,000ft
- Full history traceability and audit
- Integration into ERP
- Tagging of manifold & shear rams etc.





## Products & Services

### ARCUS-TRACK Highlights, Features & Benefits



- Tracking of Tools and Warehousing
- ARCUS-TRACK pilot in Aberdeen
- Ruggedised RFID tags
- Allows very rapid tool location
- Faster turn-around of critical components
- Integrates into SAP/Oracle/JDE/Maximo/M3
- Complete tool history







## Project Update – North Sea



- Jack up – North Sea
- First ARCUS-DROPS deployment
- 2700 assets
- Cloud-based system
- Deployed September 2014
- No reported DROPS



## Project Update – Saudi Arabia



- Land rigs – Saudi Arabia
- ARCUS-DROPS
- Deployment on two land rigs
- In service for 12 months
- Drops-free
- 22 rig deployment in negotiation
- Expanding from Malaysia to Equador
- Full translation to Mandarin





## Project Update – Gulf of Mexico

- Drill Ship – GoM (warm stacked)
- ARCUS-DROPS
- DROPS Scope - Derrick
- 2700 assets
- Expansion fleet-wide in negotiation
- Isolated system





## Project Update – West Africa



- Drillship
- ARCUS-DROPS
- Ran for 18 months then stacked
- Currently being recommissioned
- Drops-free since deployment
- Technical and cultural challenges



## Project Update – Dubai



- Land rig - Dubai
- ARCUS-DROPS
- Final deployment stages



## Project Update – West Africa



- Drillship
- ARCUS-EX Deployment
- Deployed February 2015
- Fleet-wide negotiations to include full ARCUS suite



## Project Update – North America/GoM



- BOP Installations
- First ARCUS-BOP Deployment
- Custom development and integration
- LMRP Valves Solenoids & Hoses
- First to use UHF technology

**Questions?**



**ASSET INTEGRITY  
MANAGEMENT**

A JOULON COMPANY

Company Overview  
24<sup>th</sup> April 2017