

# CASE STUDY



## **MORGAN** **SINDALL**

### **Magnor Plant ensure site safety, meet HSE compliance and see a 70% reduction inspection times with Assettagz.**

**Safety is paramount at Magnor Plant so they needed an error-proof system to manage the on-going maintenance inspection schedule of lifting and safety equipment. Magnor now uses Assettagz RFID tags and handheld computers to manage assets and record inspection results in the field.**

#### **Background**

Magnor Plant Limited, part of the Morgan Sindall group, provides modern lifting equipment, safety equipment, plant, vehicles and accommodation units to all of Morgan Sindall's construction sites.

Morgan Sindall projects range from railway and highway to housing and commercial property. The company is based in Rugby, Warwickshire and turnover for the group in 2009 exceeded £799m.

#### **The issue**

As part of the Morgan Sindall group, Magnor Plant is responsible for carrying out a thorough examination of every piece of equipment across all of the group's construction sites on a rolling six-monthly basis.

Sites can be up and running from anything from two or three weeks to six years. And with as many as 6000 pieces of equipment on each site, undertaking these examinations is no mean feat.

"In the old days we'd carry out a manual inspection and, upon return from site, begin the arduous task of rekeying all the information into our mainframe system." says Stuart Faulkner, Safety Equipment Manager at Magnor Plant. "We needed a way to reduce paperwork. Post-inspection administration and time spent rekeying data was getting out of hand: inputting up to 30 pages of results could take three or four days to complete, which then meant a delay of up to two weeks getting the final inspection report back to site."

**“With Assettagz we have cut post-inspection administration down from three or four days of lots of manual paperwork to one.”** Jonathan Hall, General Manager

## The Solution

### Safety equipment

Fire extinguishers need to be inspected on a regular basis. With 30 to 50 supplied on average on each site, **Assettagz** allows Magnor Plant to track each and every one. Each fire extinguisher is tagged with a plastic RFID tag which is then scanned ahead of them being delivered to site so when the time comes to inspect them, Magnor Plant know which site they are at.

Magnor Plant use a range of breathing equipment including Chemical (oxygen) escape breathing apparatus and Emergency Escape Breathing Devices similar to those used by the fire brigade. Its safety equipment is costly to replace and was prone to getting damaged, lost and in some cases even stolen. Magnor Plant use now **Assettagz** to control of the issue and return of its safety equipment. RFID tags are applied to each item which are then scanned as each asset as issued out and returned to site.



## How it works

1. Each piece of safety equipment is uniquely identified using an **RFID tag**.
2. Tagged assets can be instantly scanned and identified using **handheld computers**.
3. Alerts allow Magnor Plant to **manage inspection schedules**.
4. Inspection results are captured on the handheld computer. **Inspection Certificates and reports are immediately available to view** centrally on the web-based application via any internet enabled computer for Health and Safety checks, or can be emailed directly from the field.
5. With the overdue asset alert Magnor are **alerted if there is equipment that hasn't been checked**. Because each asset is uniquely tagged they know exactly which item it is, and where it is located.

**Assettagz - Inspect**

File Tasks Lists Sync! Help

Asset No: t130236 Load

Template: WEBBING SLING

Condition: GREEN Notes

Inspections:

Type	Due
Lifting Gear	16-08-10

Spares Cert Menu Deta

Assets with inspections overdue or due within 30 days			
Asset No	Template	Current Location	Inspection Type
00091947	9L FOAM	200012 Brixton to Honor O	Fire Extinguisher
00091802	9KG DRY POWDER	200012 Brixton to Honor O	Fire Extinguisher
0009402C	9L FOAM	4F0030 EAC Bushbury	Fire Extinguisher
00094340	2KG DRY POWDER	4C0012 EDF A PSC A Core C	Fire Extinguisher
000943510	BODY HARNESS	100090 Ray Hall Refurbish	Lifting Gear
0009441D	9KG DRY POWDER	200006 Croydon Cable Tunn	Fire Extinguisher
00094D5D	9L WATER	100059 Frankley GAC	Fire Extinguisher
00094E5C	9L WATER	4C0012 EDF A PSC A Core C	Fire Extinguisher
00094F47	FIRE BLANKET	4F0031 EAC Ocker Hill	Fire Extinguisher
00095317	9KG DRY POWDER	200012 Brixton to Honor O	Fire Extinguisher
000957555	ROUND SLING	100040 Esholt 2	Lifting Gear
001107892	WEBBING SLING	4AA004 AX4 STORES	Lifting Gear
001108185	WEBBING SLING	W. DRINKWATER	Lifting Gear
0011259	BEAM TROLLEY	200025 BARRY PIPE JACK	Lifting Gear
001126683	BODY HARNESS	OUT OF SERVICE EQUIPMENT	Lifting Gear

## Implementation

The first task was to visit each site to create the current register of assets, carry out inspections and apply the unique RFID tags.

“We worked in close collaboration with the 4hSolutions consultancy team to design a set of inspection forms that met our exact requirements. When we held our training day on site at our Rugby head office, the new system was received well by the vast majority of the team. Any concerns raised related to a fear of the technology, however, the 4hS team was great at fielding questions from staff and any concerns were addressed on the day.” says Stuart.

The system has now been live for 18 months and Magnor Plant have over 20,000 items on the system.

Magnor Plant use the Psion WORKABOUT Pro handheld PC as, working in a tough environment, they needed a rugged, robust mobile computer that was up to the job. The WORKABOUT Pro can withstand the wear and tear that comes with operating on construction sites. Currently, Magnor Plant have four handsets that they use to carry out our on-site examinations.

**“No other company was even in the running for this project. The team at 4hS are so helpful and the back up and support we receive from the Support staff is fantastic.”**

**Stuart Faulkner,**  
Safety Equipment Manager

## The results

### A 70% reduction in inspection times

“We now use **Assettagz** to manage and monitor inspections on all of our lifting and safety equipment and the results speak for themselves: Using **Assettagz**, we have streamlined our entire inspection process and cut post-inspection administration down from three or four days to one with no paperwork.” says Jonathan Hall, General Manager at Magnor Plant.

“We have virtually eliminated rekeying, which removes the inherent risk of human error.” continues Stuart. “The only time we go back into the inspection data is to print and sign off the inspection report for the Health and Safety file.

Previously there could have been a delay of up to two weeks getting the final report back to site. Now because our laptops use GPRS connection we don't even need to go back to the office. We can view, print and sign on our laptops on site and send the report there and then.”



## Health & Safety compliance

Having an audit trail of the inspection history of each assets aids HSE (Health & Safety Executive) compliance.

“Improving site safety and reducing administration were the key drivers for us, but by being able to prove inspections have taken place with the relevant documentation stored electronically has meant, by default, improving our HSE compliance.” says Jonathan.

**“Improving site safety and reducing administration were the key drivers for us, but by default, we have improved our HSE compliance.”**

Warnings and overdue alerts add a further measure to ensure that Health & Safety rules are not inadvertently contravened.

“Overdue asset reports tell us if there is equipment on site that hasn’t been certified. We immediately inform the site and if they have the item, it can be taken out of circulation until it has been inspected or if is no longer there, is marked as ‘disposed’ in the asset database.” says Stuart.

## Reduced asset loss and theft

Now that Magnor Plant track their safety equipment using RFID tags, it is far less likely to get lost, damaged or stolen as staff are more aware of the accountability placed on each of their construction sites.

## Phase II

Magnor Plant have been so impressed the results that they are now planning to roll **Assettagz** out to its Hire Desk to automate the issue and return of cabins to construction sites.

Cabin inspections will be carried out on customised forms using the same handheld technology used on the lifting gear. **Assettagz** will help to ensure that not only are all requisitions accurate and complete, but only equipment that has been certified as ready for use can be issued for hire.” continues Jonathan.

“In addition to the obvious benefits of an automated hire desk, RFID tags seem like the ideal solution to identify cabins, as they are not affected by the regular repainting we undertake as part of ongoing cabin maintenance. We look forward to working with 4hSolutions on this next phase.”



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