



Magnor Plant

Magnor Plant Complies to Health and Safety Standards and Reduces Inspection Times by 70%

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

Morgan Est 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.

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– Jonathan Hall, General Manager at Magnor

The Challenge

As part of the Morgan Est 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 bi-annual basis.

Sites can be up and running from anything from two or three weeks to six years. With as many as 6000 pieces of equipment on each site, undertaking these examinations is not easy.

"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. "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."

The Solution

Fire extinguishers need to be inspected on a regular basis. With 30 to 50 supplied on average on each site, Assettagz by 4hSolutions allows Magnor 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 know which site they are at.

Magnor 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 use Assettagz to control the issue and ensure the return of its safety equipment. RFID tags are applied to each item which is then scanned as each asset is issued out and returned to site.

The first step in implementing this solution 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 over 18 months and Magnor have over 20,000 items on the system.

Magnor required rugged, robust mobile computers that could handle the rigors of working in a tough environment to complete the solution. Magnor selected Psion Teklogix WORKABOUT PRO rugged handheld computers for the job. The WORKABOUT PRO can withstand the wear and tear that comes with operating on construction sites. Currently, Magnor have four handsets that they use to carry out our on-site examinations.

The Benefits

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.

"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.

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

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 hand-

held 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 re-painting we undertake as part of ongoing cabin maintenance."

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.