

## Monitoring Impact within The McDonalds Division (TMD) Supply Chain

The UK McDonalds Division (TMD) within Coca-Cola had a requirement to monitor 5000 Arca Boxes carrying 250 litre of Coke syrup. The collapsible, reusable boxes were custom designed by Arca to store and move the bulk syrup around the McDonald's UK system. Costing €150 per box, the shelf life was estimated at on average 40 trips per box.



One complete trip for an Arca box would involve collection from CCE Milton Keynes by McDonald's own distribution company, Martin Brower (MB), unloading at the MB Distribution Centres, 3 in the UK & then onwards distribution across 1200 McDonald's restaurants. The reverse would then be the same but with the boxes now empty & folded flat. Damage to a high scale was seen on the return boxes mainly on the bottom skids & bases due to incorrect lifting by fork lift trucks rendering the boxes or their bases unsuitable for future use. In the first year of use we absorbed

nearly £80,000 worth of cost in replacing damaged bases.

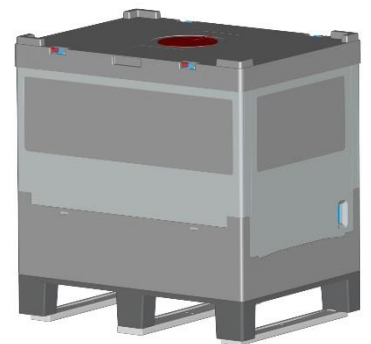
TMD wanted to know exactly where in the supply chain the damage was taking place to be able to have data based conversations to be able to negate this cost.

To help supply this data TMD contracted Traceall & using their technology placed RFID tags & readers in the bottom of some of the boxes. In the storage facility there were about 500 identical boxes so TMD needed a way of identifying the specific damaged pallet which the RFID technology facilitated and enabled the staff to investigate the damage done to it.

Battery powered Smart Asset Monitoring Solutions (SAMs) were installed within some of the boxes in specific locations to monitor impact. The data collected from the tracker monitored any impacts sustained over 14G. Field tests were carried out in advance to confirm the exact impact force it took to damage a pallet. What TMD were trying to understand was how the pallets were getting damaged, what and where this was happening, i.e. did they fall off a forklift, were they being damaged during the transportation process within the distribution centre etc.

The data was collected over a period of a year and by analysing the data the analytics identified the impacts were being recorded in one specific distribution centre on their night shifts.

With this information, TMD could make significant changes to their working practices. By retraining the particular DC involved, they reduced the number of impacts by in excess of 75% & by default reduced significantly their repair & replacement costs.



Paul Jekyll, Director Technical Operations - The McDonald's Division Coca-Cola Europe, said "Having identified and spent a significant amount of money on the Arca boxes, it was crucial that we identified the source of the damage and rectify it as quickly as possible to minimise further damage. Traceall Global's RFID and SAMs monitoring and data analytics solutions enabled us to identify exactly when and where the problem was occurring and by changing our working practices we rectified it immediately. Traceall Global has a wealth of experience in the monitoring, tracking and data collection arena and helped us identify the right type of technology solutions to help us find a conclusion."