



MPACT'S ASSET TRACK AND TRACE

ABOUT US

Mpact Plastic Containers (MPC) is a leading local manufacturer of Returnable Transit Packaging (RTP). MPC's competencies are the manufacturing of **Plastic Crates, Plastic Containers, Plastic Pallets, Jumbo Bins, Wheelie Bins and Data Collection and Facilitation.**

The factories operates in two sites with 15 injection moulding machines ranging from 850 to 5,500 tons.

WHAT WE OFFER

With the increased demand for connectivity and management through data MPC now offers IoT enabled products.

The evolution of our products led us to enhance our offering to the market by making our products intelligent through the fitment of Ultra High Frequency (UHF) and Low Frequency (LF) (applicable to Wheelie Bins only) Radio Frequency Identification (RFID) Tags.

HOW DOES IT WORK?

These RFID Tags will either be ultrasonically welded to the product or sleeved into the prod-

uct to provide longevity of the tag and ultimately Track and Trace.

THE READ RANGE

The read range of the UHF RFID Tags is typically 5 to 10 meters. The read range of the low frequency (LF) tags (applicable to Wheelie Bins only) is 4 to 6 centimeters.

It must also be noted that in certain applications with dense or liquid product inside the crates and pallets, these products will more than likely require two tags to be fitted to ensure data collection integrity.

READER PORTALS

The offering will also employ RFID Reader Portals which are fixed at delivery or collection points of factories, warehouses, distribution centers, and other facilities to read or scan assets in near real-time. Wheelie bin readers are integrated into waste collection vehicles.

Where the fixed portal cannot be used, the offering also makes provision for handheld Readers and Scanners that are 3G/ 4G enabled to communicate the data in near real-time to the database.

The database is web based and can be accessed via any Chrome enabled device. The database can be installed on your local server.

APPLICATION AND BENEFITS

- Visibility of crate pool.
- Mitigates losses.
- Efficient and effective management of crate pool.
- Accurate resource planning.
- Proof of receipt and delivery.
- Date, time and location stamp of last scans/ reads

CUSTOMISATION

- General reporting.
- Age analysis of assets.
- Crate content can be specified.
- Age analysis of content.
- Mapping & tracking process and progress.
- Supply chain visibility.
- Location management.
- Item management.

The Asset Track & Trace Database is designed for the following product market sectors (but not limited to):

FOOD



PLASTIC PALLETES



TEXTILE



WHEELIE BINS AND WASTE MANAGEMENT



Mpact Plastic Containers (Pty) Ltd

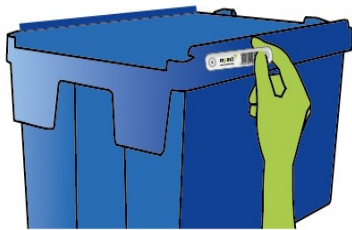
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MPACT'S ASSET TRACK AND TRACE

1. RFID Tags



RFID tags are fitted onto Mpack's products during the manufacturing process, converting them into Smart Products.



2. Smart Products

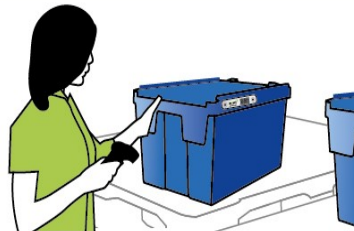
After manufacturing and quality assurance checks, Smart Products are dispatched from the manufacturing facility to the customer's DC/ warehouse.

3. Smart Products at Client



Smart products are dispatched from the customer's DC via a RFID portal. The content placed inside or on top of the smart products (plastic container/ pallet/ bin) are linked to the RFID tags.

4. RFID Portal



At the various delivery points (stores), Smart Products are scanned again with handheld scanners (mobile device).

5. Smart Products Scanning



Empty plastic containers/ pallets/ bins are returned to the DC.

6. RFID Tags - Smartproducts to Customer DC/Warehouse



Cycle starts again at 2.