

BT Radioshuttle System

Ease-of-use, Effective and Reliable

Toyota Material Handling's BT Radioshuttle system is an advanced high-density storage solution that allows you to utilise up to 85% of your available space without compromising your productivity.

This high density storage solution is based on the concept of remote controlled shuttle units working within storage 'tunnels'. It provides simple, efficient and reliable pallet handling within the racking system with only one button push on the remote control.

The shuttle unit is easily moved between storage tunnels using a conventional forklift truck, with fork guides under the shuttle unit ensuring safe and highly accurate handling.

Uncompromising engineering design, with many generations of product development, results in an extremely reliable system with high quality construction and therefore exceptional durability.

With an excellent track record around the world, the BT Radioshuttle system delivers exceptional efficiency and extra high precision material handling in high-density storage systems 24 hours per day, seven days a week. It perfectly adapts to the toughest working conditions such as cold stores and can be integrated into the local warehouse management system.

As a result of 20 years' experience and worldwide installations, every hour 7 days a week 70,000 pallets are being moved by a BT Radioshuttle system.

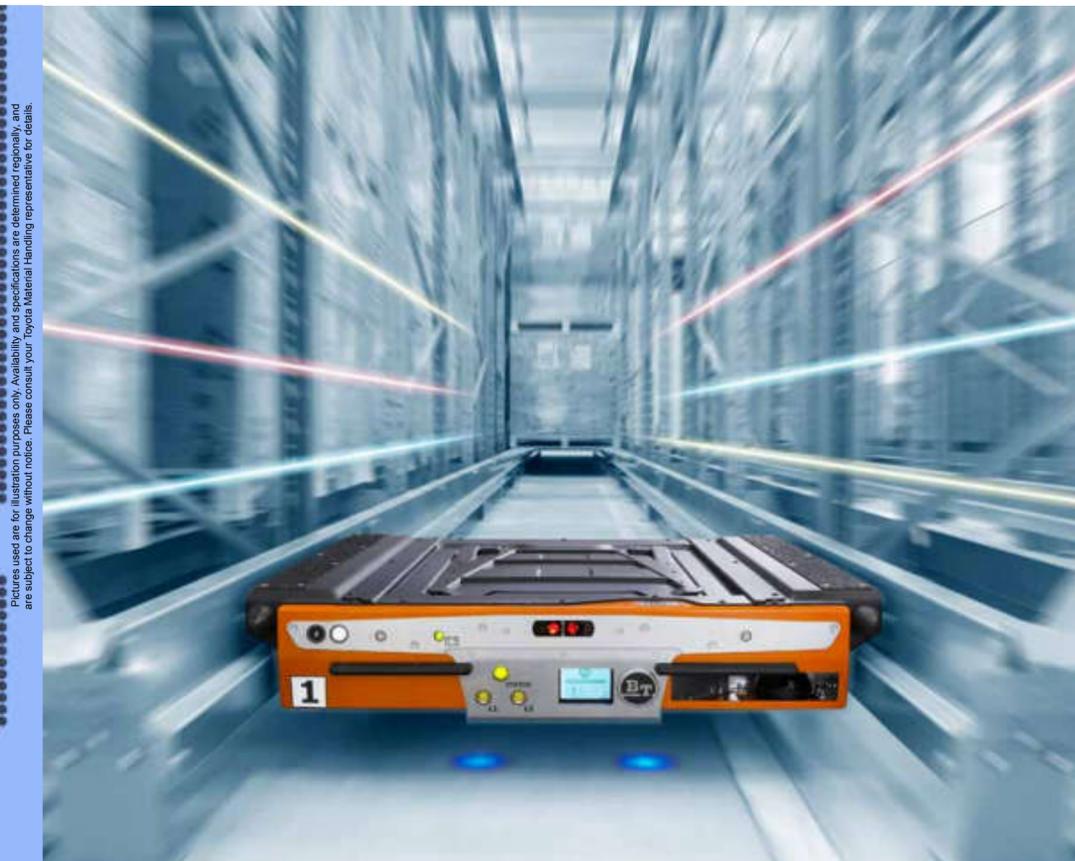
Toyota Material Handling in Europe

Total coverage
The Toyota Material Handling network extends to over 30 countries in Europe with more than 4500 mobile technicians.

Always local – with global support
Wherever you are located in Europe, we are always local, due to our extensive coverage, but with the stability and back-up of a worldwide organisation.

Made in Europe
Over 90% of trucks we sell are built in our own European factories, in Sweden, France and Italy – all to TPS quality standards. We employ over 3000 production staff in Europe and work with over 300 European suppliers.

Approximately 15% of our European production is exported to other parts of the world.



High Density Storage

Reducing Costs and Maximising Use of Space

The BT Radioshuttle was the first high-density shuttle storage system to enter the market. It was developed 20 years ago in response to a customer's need to maximise his storage capacity in a confined space, without compromising productivity.

Since then the solution has been continuously developed with our customers, and today there are more than 1,000 successful installations around the world.

A unique characteristic of the BT Radioshuttle system is that the racking and shuttle units have been developed specifically to work together, which means we always deliver proven turn-key storage solutions.

Maximise your storage capacity
The BT Radioshuttle system allows you to use up to 85% of your available space, and it can be used in temperatures down to -30°.

Increase your productivity
While the semi-automatic radioshuttle unit handles the pallet inside the storage tunnels, the forklift operator is free to handle the next pallet, hence eliminating unnecessary waiting time and therefore optimising productivity.

Drive down your operating costs
There are many cost-saving aspects to the BT Radioshuttle system. Increased use of space is a key factor, but additionally there are potential savings through less use of traditional forklifts, and reduced manpower.

Drive down your maintenance and damage costs
The BT Radioshuttle system minimises the contact between forklifts and racking, which drastically decreases the risk of racking and stock damages, as well as the related maintenance costs.



70.000
pallets/hour
worldwide

85%
Space utilisation



Testimonial

Since 2001, Polish company ZAK has been distributing frozen fruit and vegetables. The cold storage operation maintains a temperature of -25°C, making this a demanding and challenging working environment.

Andrzej Sikora - Warehouse Manager for ZAK

"When planning our new cold store warehouse, we chose to invest in a BT Radioshuttle System from Toyota Material Handling. Our decision was based on the proven reliability and efficiency benefits we could foresee with this system. The BT Radioshuttle is now installed and we are seeing those benefits and it has proven to be a reliable partner".

Key Benefits

Productivity

Fast and reliable pallet handling

- Maximum possible storage capacity while maintaining optimal productivity.
- Fastest in-system pallet handling speed available.
- Forklift operators can handle many more pallets in less time.
- Batteries last full shift of continuous operation.

Cost advantage

Reduced warehouse operations cost

- Significantly lower warehouse operating cost due to reduced time needed for pallet handling by forklift trucks.
- Increased storage capacity with BT Radioshuttle is a low cost option compared to new warehouse facilities.
- Much lower damage costs compared to other storage solutions.

Ease-of-use

Easy pallet handling

- Easy to relocate shuttle in racking system.
- Most common operations only require one push on remote control.
- Shuttle "belly" prevents shuttle from sliding off forks.
- Simple to recharge and change batteries.

Safety

Laser scanner protection system

- The whole BT Radioshuttle system is certified in accordance with EN 13849-1:2008, performance level C.
- Protection system with laser scanners ensures personal protection – movement is stopped before impact.

Durability

Heavy-duty industrial application

- Excellent track record and experience with over 1,000 installations worldwide.
- Engineered racking details and a robust design ensure reliable operation with unbeaten durability for many years.

Service

Based on the Toyota Service Concept

- No matter where your business is located our highly trained technicians are never far away to maintain your fleet of trucks.
- 24 hour parts delivery anywhere in Europe.
- We ensure Europe-wide coverage.
- We only use exactly-fit genuine parts, for performance and durability.

Application Segments

The BT Radioshuttle is the optimal solution for applications with relatively few order lines, but high volumes, allowing maximum possible storage capacity in your facilities. Here are a few examples of popular applications.

FIFO or FILO

One of the many benefits of the BT Radioshuttle system is its flexibility. It can be used in FILO operations to maximise storage capacity with loading/unloading at one end of the system. It can also be used efficiently in FIFO operations, with loading and unloading at opposite ends - for example as a link between the storage area and marshalling area.



Cold Store

Optimal utilisation of space is extremely important in refrigerated areas. High cooling cost translates into expensive storage, so having a system that allows for maximum storage capacity significantly reduces cost. The BT Radioshuttle system can help you with this by offering up to 85% space utilisation in temperatures down to -30°.



Picking Tunnel

The BT Radioshuttle system can easily provide buffer storage over a picking tunnel. In this way you can create a safe picking area for your workers without compromising your storage capacity. BT Reach trucks retrieve pallets from the buffer storage on top, and feed the tunnel via the gravity-flow racking at the sides.



Marshalling area

The marshalling area of the warehouse is a place that is often overlooked when optimising storage capacity. By building a mezzanine over the marshalling area, you can with the BT Radioshuttle system utilise this valuable space for storage without interfering with the normal operations underneath.



20 Years of Progress

The BT Radioshuttle represents an evolution of design and functionality that spans over two decades. We are in a constant process of evolving the system in order to increase productivity, and to enhance safety, durability, and ease-of-use.

Feature table

General features	Safety	Productivity	Durability	Ease of use
Customized engineering of each project				
Superior pallet handling speed				
Patented rail design				
Touchless safety system with laser sensors				
Cold store application down to -30°				
Unlimited channel depth				
Nearly any pallet size possible				
CID – Customer Info Display				
Reliable Inventory function				
"One Push Function" remote control				
One remote control serves unlimited number of shuttles				
Options / Accessories				
I_Site - Fleet Management System				
Li-Ion batteries				
Enhanced storage management with RFID technology				
Double deep pallet handling				
Tilt warning sensor				
Pallet load up to 1800 kg				
Charging station				
Maintenance workplatform				
Automated solutions / WMS Interface integration possible				

BT Radioshuttle System from Toyota Material Handling

The BT Radioshuttle system was the first system of its type ever developed, and over 20 years the concept has been developed to continue to offer the most efficient use of storage space.

Optimised Storage Capacity

The system offers up to 85% space utilisation and can be easily installed within your existing facilities.

Maximum Productivity

One touch operation and the highest available shuttle speed maximise productivity, with one operator able to multi-control several shuttles simultaneously.

Driving Down Costs

Significantly lower warehouse operation costs and maintenance due to reduced damages of goods and racking.

Highest levels of Safety

Non-touch laser scanner safety system according to certified standards.

Financial services

We are able to discuss the possibility of further assisting you with our range of financial services.