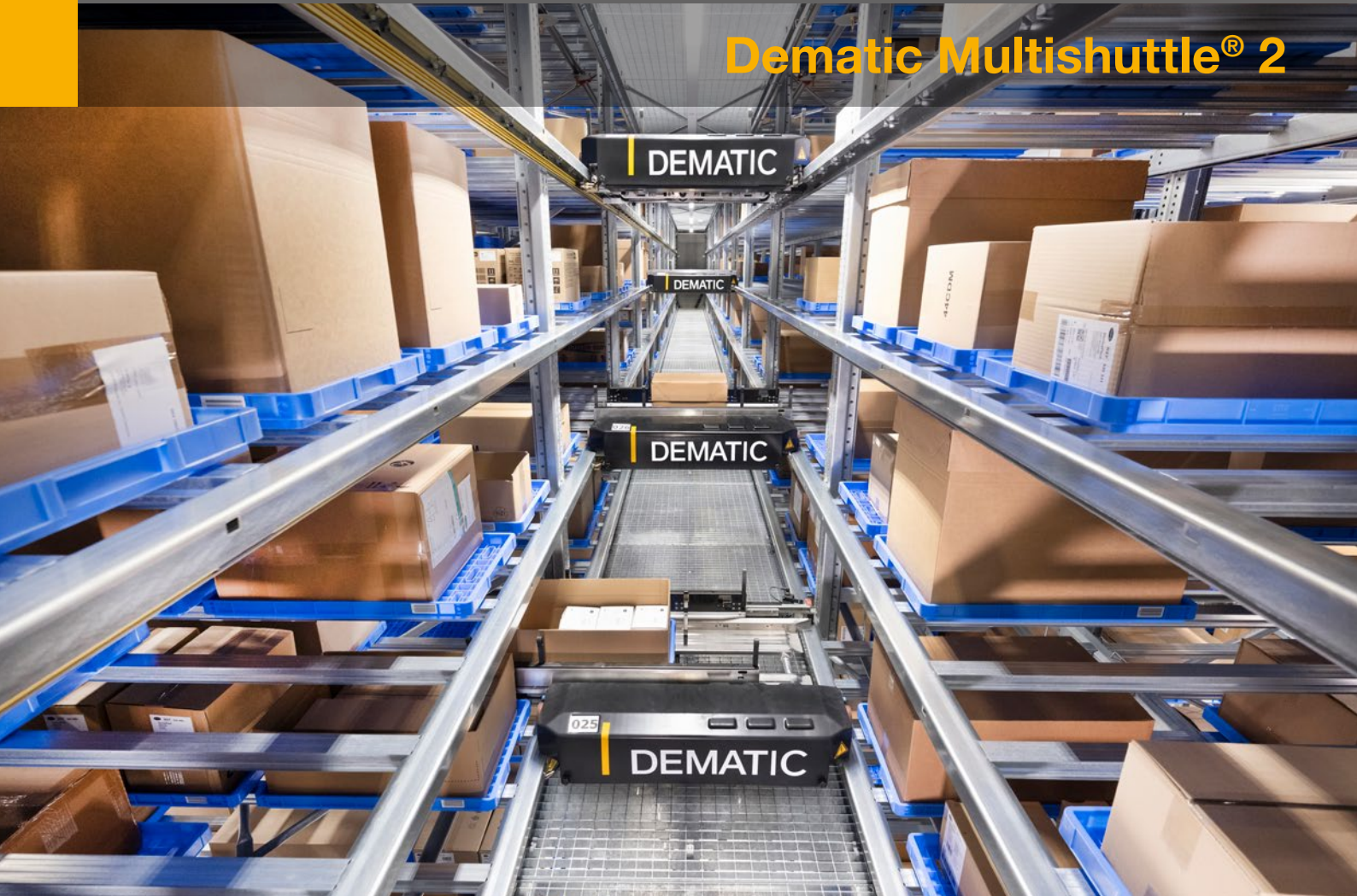




## Dematic Multishuttle® 2





In intralogistics new cross-industry trends emerge: rapid product growth, small batch sizes, higher performance requirements, sequence-based provision and a wide range of load handling devices – to name the most important.

To respond to these trends and to provide automated logistics solutions largely independent towards changes in the order structure and product diversity, we have followed a top design criterion in the development of Dematic Multishuttle® 2: Flexibility.

Thanks to its modular and redundant design you can be calm at heart with the Dematic Multishuttle® 2 for your future demands.

**STATIC**  
**FLEX**  
**BELTED**  
**FLEXTENDED**  
**NARROW BODY**





## About Dematic

Dematic is one of the world's leading suppliers of logistics automation systems and solutions. With a global knowledge network of highly skilled logistics professionals, Dematic provides its customers a unique perspective in world class materials handling solution design.

What this means for you: Even in international projects, you have a single point of contact. Dematic takes responsibility for throughput and system uptime in logistics projects.



## Compact with high rate capacity

**Dematic Multishuttle® 2** is a highly effective system for buffering totes, cartons, trays or individual bundles. It is an efficient staging solution that offers space-saving storage and buffering with a high storage density and maximum operational flexibility.

### Typical applications

Dematic Multishuttle® 2 is ideal for supplying product to piece pick order fulfilment modules or mixed case pallet building operations. It can also serve as a pick face replenishment solution. In addition, Dematic Multishuttle® 2 can be applied as a short term buffer storage system or as a manufacturing support subsystem for production operations.

### The new generation

The Dematic Multishuttle® 2 is the second generation of our shuttle technology. The all new design incorporates outstanding engineering, a flexible load extractor, halving of weight, doubling of speed, higher payload capacity, and multi-deep storage capability. Static, Flex, Flexextended, Belted and Narrow models allow the solution to be based on the customer's unique product requirements.

The Dematic Multishuttle® 2 Flex und Flexextended option incorporate flexible load handling technology, enabling high performance storage and retrieval of variable cartons, totes, oversizes and package formats – without the use of trays. The load handling device “flexes” its telescopic arms to adjust to the exact width of the load to be handled as “fingers” engage the product for transfer on and off of the shuttle.

### Telescopic load extractor reaches both sides of rack

The innovative eight finger design of the load extractor and overlapping telescope arms allow for the use of only two telescopic sections to store products single, double, or multi-deep. The load capture fingers are plastic cast, carbon fibre reinforced for robust long term performance.

The Flex Shuttle allows flexible storage and retrieval and thus space-saving storage arrangement (dynamic slotting).

### Dematic Multishuttle® 2 redefines warehouse logistics:

Increased throughput:	Up to 10 times higher than conventional storage systems
High utilisation:	Feeds workstations with high rates to keep workers fully utilised
Ultra-high storage density:	Supports multi-depth storage and handling of units of different sizes tightly packed without fixed storage locations. Lifts can connect work stations above and below to ensure maximum density and use of space.
More layout options:	Fits into overhead spaces, under/over obstructions, best cube utilisation
Precise sequencing:	Presents loads to pick stations or palletisers in exact sequence
Range of load types:	Flex option accommodates various load sizes
Redundancy with back-up:	The rapid interchangeability of the shuttles ensures high system availability. Work platforms in the rack aisles allow manual access to inventory and service to shuttles.
Scalability:	Add more aisles, levels and lifts in future to provide more throughput



Like all products from Dematic, the Dematic Multishuttle® 2 can be optimally integrated into a SAP EWM or WMS solution

- Load types: Plastic tote box, cardboard carton, trays, bundles
- Load weight: up to 50 kg
- Variants:
  - Static Telescopic load extractor (fixed length & width)
  - Belted Belt conveyor load deck
  - Narrow Extra schmaler Korpus
  - Flex / Telescopic load extractor; expands/contracts, accommodates a range of load sizes
  - Flexextended
  - Freezer for deep frozen storage
- Storage density: single or multiple-deep





# Specifications

Designed with flexibility and efficiency in mind, the Dematic Multishuttle® 2 offers standard modular components and the flexibility to be scalable, especially for companies experiencing rapid growth and change in product demand profiles.

## Specifications

### Load types

Plastic tote box, cardboard carton, trays, bundles

### Load weight

Capacity: Up to 50 kg

### Configuration

Multishuttle Static: Telescopic load extractor (fixed length & width)  
 Multishuttle Belted: Belt conveyor load deck  
 Multishuttle Narrow: Extra narrow body  
 Multishuttle: Telescopic load extractor;  
 Flex / Flexextended: expands/contracts, accommodates a range of load sizes

### Load storage density

Standard: Single or double deep  
 Optional: Multiple deep

### Load sizes

Tote box/Tray: mm  
 Length: 150 - 875  
 Width: 150 - 850  
 Height: 50 - 600

### Cartons/Packages

mm  
 Length: 150 - 850  
 Width: 150 - 850  
 Height: 50 - 600

## Specifications

Electrical system: Low voltage DC  
 Load extractor: Telescopic, Conveyor Belt  
 Shuttle communication: DPC (Dematic Powerrail Communication)  
 Velocity driving axis: 4 m/s  
 Acceleration: 2 m/s<sup>2</sup>

### Operating temperatures

Ambient: 2 °C up to 40 °C  
 Freezer (optional): -2 °C down to -28 °C

### Relative Air Humidity

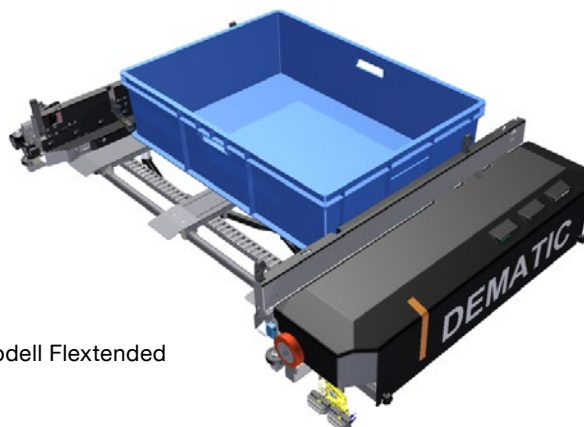
Ambient: 5% - 90%, no condensation  
 Freezer (optional): 5% - 40%, no condensation

## Benefits

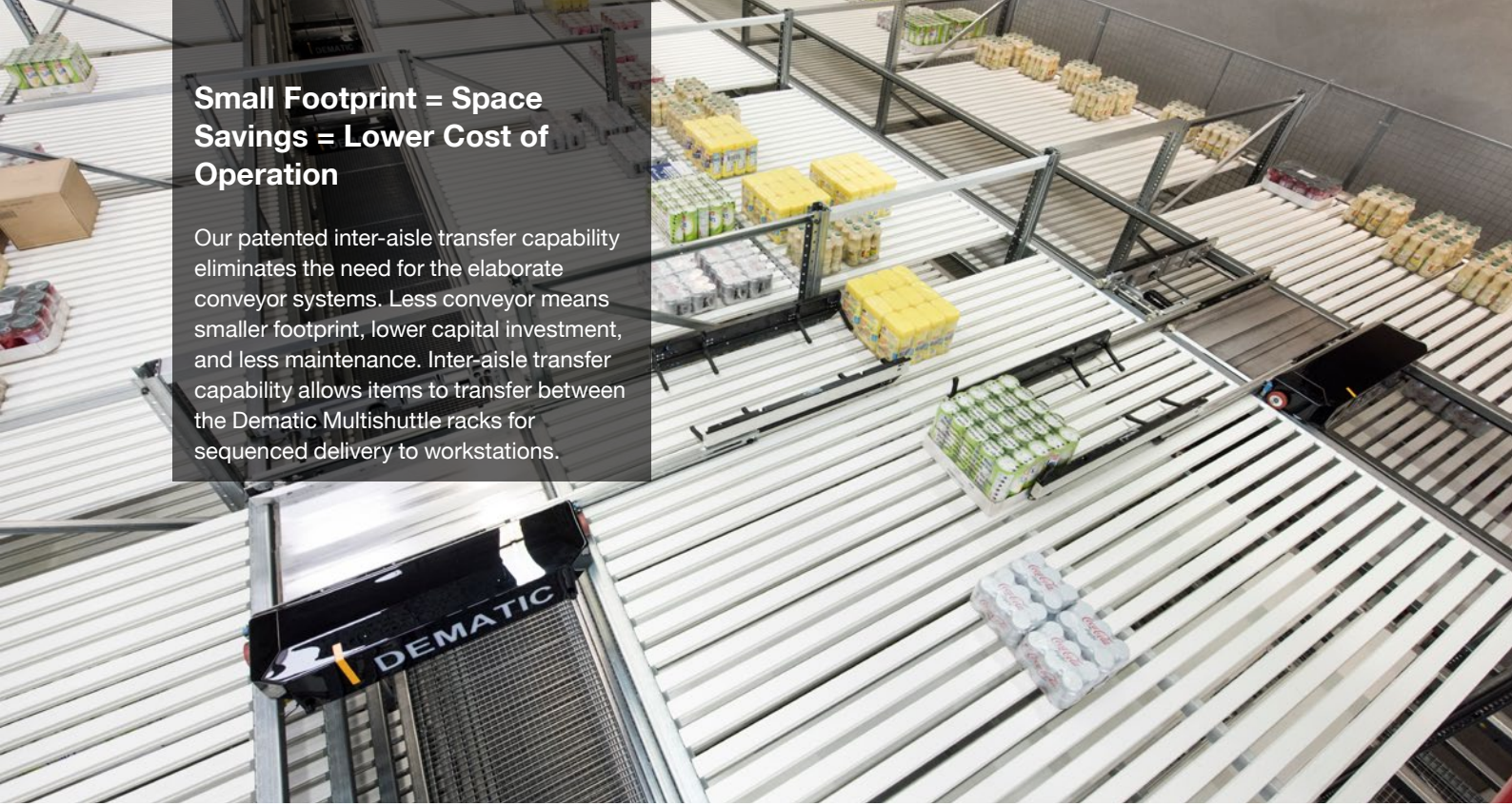
<b>Throughput</b>	10 x higher than conventional stacker cranes
<b>Scalability</b>	Extendable
<b>Layout</b>	Fittable to existing building
<b>Flow</b>	Precise load sequencing
<b>Racking</b>	Simple & cost effective, subdivision into maintenance levels
<b>Energy</b>	48 or 60 volts DC, doubled with low voltage
<b>Operator walkway</b>	Access to all shuttles, lifts and inventory through of maintenance levels and secured access doors.
<b>Configuration</b>	Captive, single/double and multi-deep
<b>Lift</b>	1, 2 or more lifts per aisle as "End-of-Aisle" or "Drive-through" solution or a combination of both.



Modell Narrow Body



Modell Flexextended



## Small Footprint = Space Savings = Lower Cost of Operation

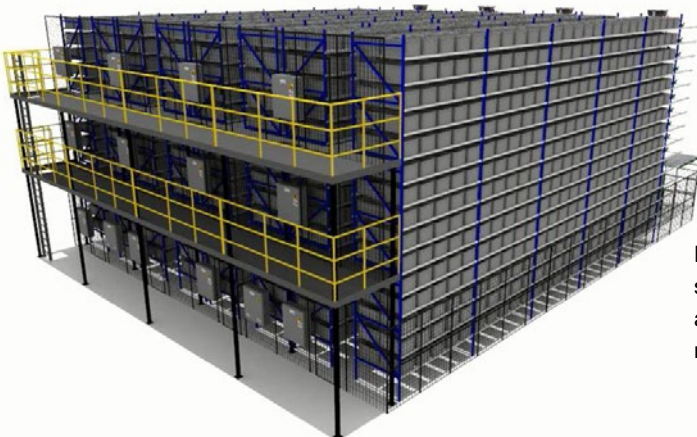
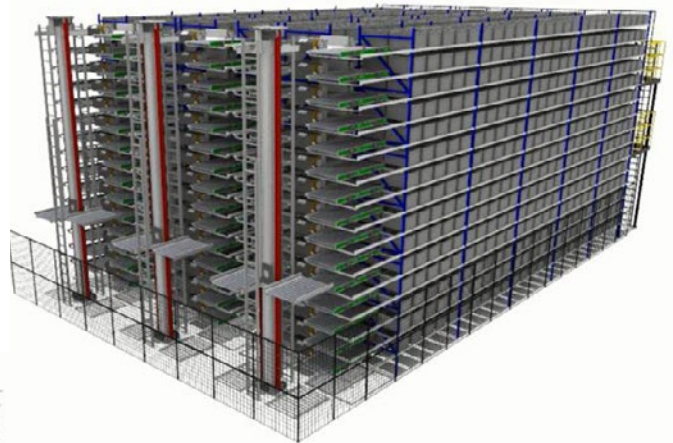
Our patented inter-aisle transfer capability eliminates the need for the elaborate conveyor systems. Less conveyor means smaller footprint, lower capital investment, and less maintenance. Inter-aisle transfer capability allows items to transfer between the Dematic Multishuttle racks for sequenced delivery to workstations.

## The Dematic Multishuttle® subsystem

Flexible, scalable, modular

The **Dematic Multishuttle® 2 System** consists of multiple levels of racking, shuttles, lifts, buffer conveyors, controls and Warehouse Control System Software. Shuttles run on each level of the rack to store or retrieve containers, cartons or trays. By using one shuttle per level (captive) no transport of the shuttles between the levels is necessary (roaming) and thus a high throughput can be generated. The items are transported from the connected conveyor system to the storage conveyors on the respective storage levels and returned from the retrieval conveyors by means of lifts. The sequence of stock removal required for order processing is generated directly in the Dematic Multishuttle® 2 system.

Front view of a typical 3 aisle Dematic Multishuttle® subsystem, with double deep rack. A dedicated dual lift module provides flow into and out of each of the rack levels.



Rear view of a typical 4 aisle Dematic Multishuttle® subsystem with double deep rack. Service platforms allow access to inventory and for service to each shuttle. Replacement devices for shuttles are optionally available.

[www.dematic.com/multishuttle](http://www.dematic.com/multishuttle)

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For more local offices, service  
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refer to our homepage  
[www.dematic.com/contact](http://www.dematic.com/contact)

\* Germany: Costs for a national call per minute:  
9 ct, from mobile phones: 42 ct. Calling costs  
from other countries depend on the respective  
providers.