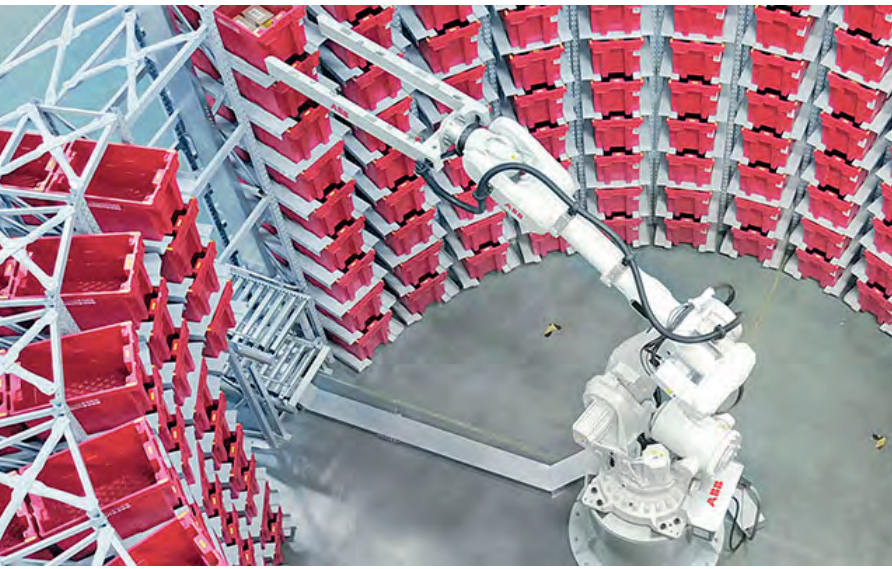


FlexBuffer™



The FlexBuffer™ is a modular cell, that offers additional functionality to the traditional automated storage and retrieval systems.

The robot is at the heart of the system, which makes it a very reliable and low maintenance alternative.

What the solution contains

The FlexBuffer™ consists of a:

- ABB robot
- Suite of grippers
- In- & outfeed conveyor
- Storage racking
- Safety fencing & access door
- PC, controls & software pack

How the solution works

The robot receives commands to store goods fed in on the inbound conveyor. Based on the storage logic the robot places the goods in the defined rack positions. On command the robot picks up requested goods from the respective racking positions and puts these on the outfeed conveyor.

Applications

Automated warehousing of goods in transport modules enabling automated storage and retrieval for picking, packing, or palletizing.

Buffering describes the temporary storage of goods before further processing – also called order consolidation in warehouse and logistics context.

Sequencing is the process of changing the order of incoming and outgoing items to achieve pre-defined sequences based on item delivery time, weight, temperature, or other attributes.

Configurations


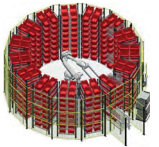
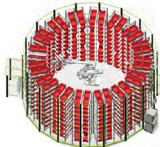
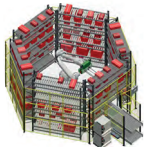
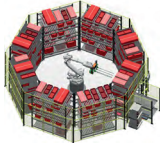
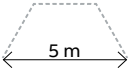
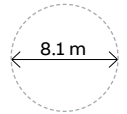
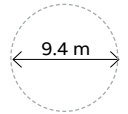
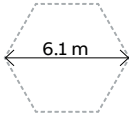
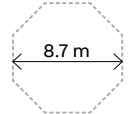
Totes: Custom designed racking and gripper to accommodate and handle a single tote type – optimizing the storage capacity of the cell.

Mixed items: A flexible gripper equipped with adjusting forks to allow manipulation of mixed cuboid items within a certain dimension range. Optimally designed octagonal or hexagonal racking to maximize flexibility in storage space allocation.

Customer Segments

Logistics, Food & Beverage, Consumer Packaged Goods, Restaurants, Retail and Healthcare.

FlexBuffer™
Configuration table

Type	Totes			Mixed	
Configuration	Compact Sequencer	Tote Compact	Tote Storage+	Mixed Compact	Mixed Storage+
					
Storage capacity	36 totes ²	452 totes ²	612 totes ²	190 items ²	360 items ³
Cell size					
Single cycle performance	543 cycles/hour ¹	288 cycles/hour	283 cycles/hour ¹	356 cycles/hour ¹	291 cycles/hour ¹
Combined cycle performance	261 cycles/hour ¹	145 cycles/hour ¹	143 cycles/hour ¹	181 cycles/hour ¹	146 cycles/hour ¹
Max. payload	25 kg per tote	25 kg per tote	12.5 kg per tote	35 kg per pick	35 kg per pick
ABB robot	IRB 460-110/2.4	IRB 6700-150/3.2	IRB 6650S-125/3.5	IRB 6700-150/3.2	IRB 6700-150/3.2

1. Design performance according to FEM norm 9.851, 2. Assuming avg. item dimensions of 600 x 400 x 350 mm, 3. Assuming avg. item dimensions of 600 x 390 x 350 mm