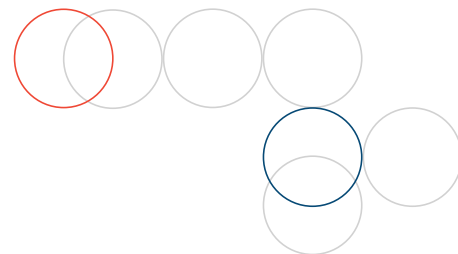
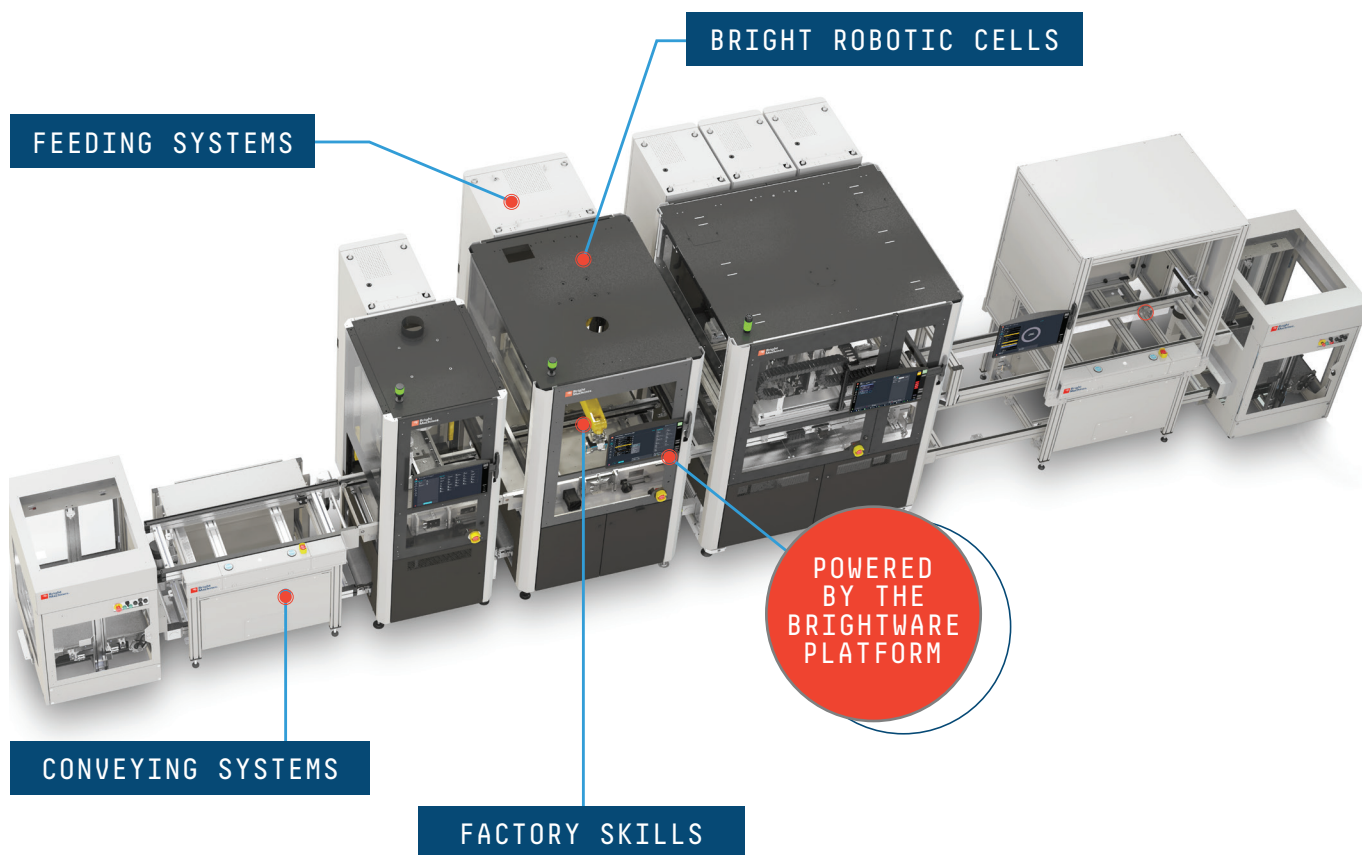


Bright Machines® Microfactory



Intelligent Automated Assembly

Powered by the Brightware® Platform, Bright Machines Microfactories leverage programmable building blocks that can be quickly configured to form flexible, scalable assembly lines.



Assemble electronic products and subassemblies

Build multiple SKUs on the same line with fast changeover

Run continuously for hours with automated material feeding

Inspect results using machine vision and machine learning



Bright Robotic Cells

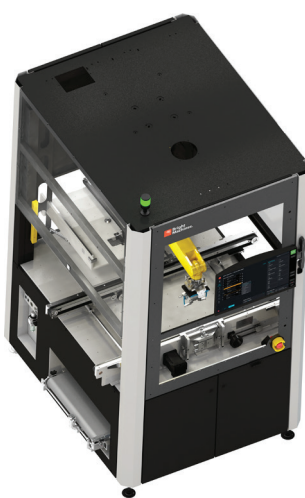
Bright Machines Microfactories use one or more robotic cells to form an automated assembly line.

STANDARD CONFIGURATION

BRC35



BRC70



BRC100



Internal volume of chassis (excluding electrical cabinet)

35 cubic feet

70 cubic feet

100 cubic feet

External dimensions of chassis (excluding embedded conveyor)

850 x 1000 x 2200 mm

1206 x 1505 x 2200 mm

1700 x 1505 x 2200 mm

Weight

450 kg

900 kg

1150 kg

Maximum pallet size

700 x 450 mm

700 x 600 mm

1200 x 600 mm

Robot manipulators

Nachi EZ06 4-axis, 5 kg payload

Fanuc LR Mate 200iD/7L 6-axis,
7 kg payload

Dual gantries

There are three sizes of cells available. The [BRC35](#), [BRC70](#), and [BRC100](#) have internal volumes of 35, 70, and 100 cubic feet. The three cells can be used together on the same line to assemble products with heights up to 220 mm and weights up to 30 kg. Each BRC has a standard configuration which includes the chassis, electrical cabinet, robot manipulators, 200-230VAC power supply, and 21" touch screen display.



Feeding Systems

Bright Machines Microfactories support automated material feeding, enabling the assembly line to run for extended periods of time without requiring human operators to load materials into it.

STANDARD CONFIGURATION

TRAY FEEDER 305

TRAY FEEDER 600



External dimensions of chassis	
1360 x 490 x 2246 mm	1360 x 780 x 2246 mm
Weight	
450 kg (no cart) 650 kg (cart with max payload)	530 kg (no cart) 680 kg (cart with max payload)
Maximum payload	
10 kg per tray 250 kg per cart	10 kg per tray 250 kg per cart
Maximum part size	
280 x 380 x 200 mm	560 x 380 x 200 mm

The [Tray Feeder 600](#) and [Tray Feeder 305](#) each support 25 trays with a cycle time of 6 seconds to switch trays and are compatible with the BRC70 and BRC100 fitting onto the back side of the cell.



Conveying Systems

Bright Machines Microfactories support conveyance of payloads up to 30 kg. Embedded conveyors move pallets from cell to cell for processing a sequence of operations. Return conveyors bring pallets back to the start of the line.

STANDARD CONFIGURATION

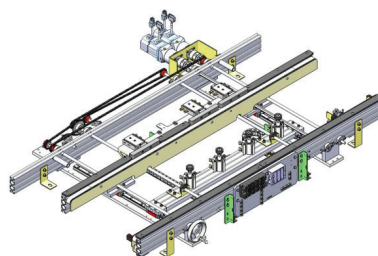
PALLET ELEVATOR



CONVEYOR STATION



ADJUSTABLE WIDTH CONVEYOR



External dimensions of chassis

1119 x 921.5 x 1274 mm

1400 x 1100 x 1040 mm

Weight

220 kg

130 kg

Adjustable width

Supports PCBs of various sizes

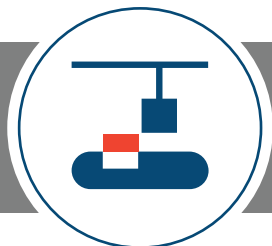
[Pallet elevators](#) are used in the line to transport pallets vertically between the embedded conveyor and return conveyor.

[Conveyor Stations](#) can be placed in the line where needed to accommodate human operator run stations or automated stations which don't require a cell, and [adjustable width conveyors](#) can be configured to support a variety of PCB sizes.



Factory Skills

Bright Machines Microfactories are configured with end of arm tools to enable them with factory skills for electronics product assembly.



Assembling



Fastening



Labeling



Welding



Dispensing

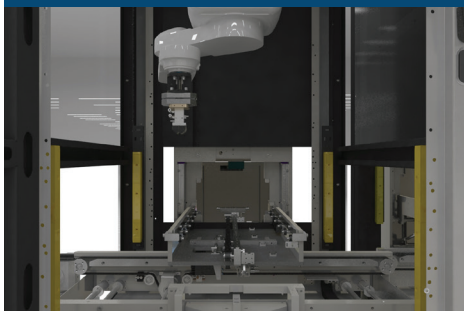


Pressing

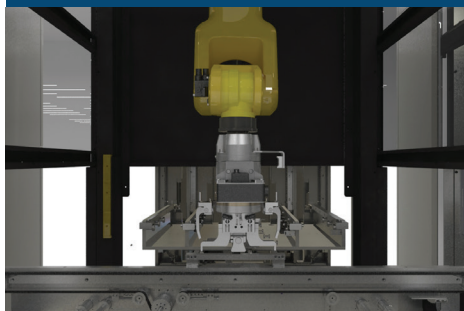


Vision

BRC35 CONFIGURED
WITH GRIPPER



BRC70 CONFIGURED WITH
DIMM INSERTION TOOL



BRC100 CONFIGURED
WITH SCREWDRIVER

