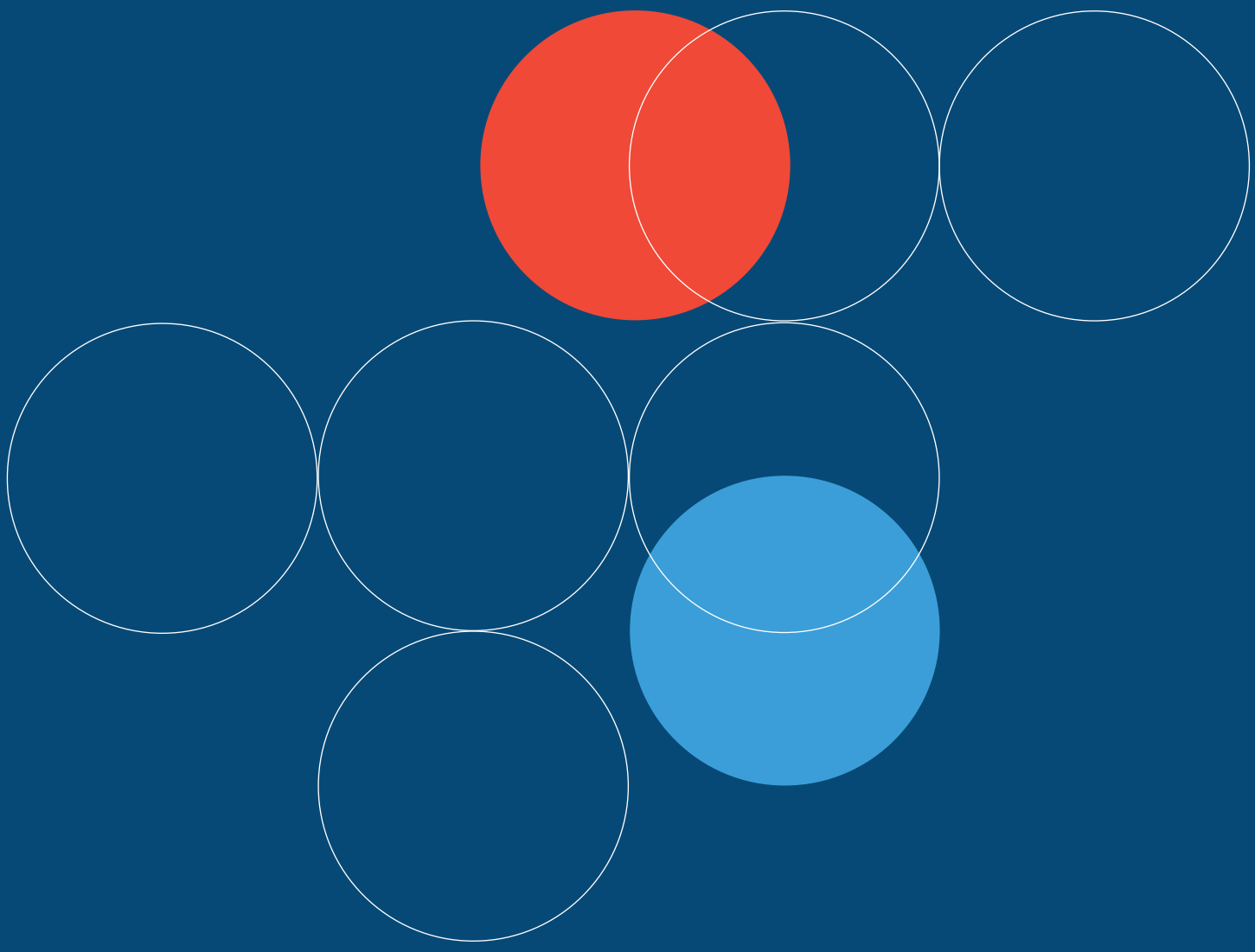
Bright Machines®

PRODUCT BROCHURE

Bright Machines Product Portfolio



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Intelligent product assembly

Bright Machines helps companies manufacture more products, at a higher quality and lower cost. Our software intelligently automates product assembly and inspection, helping solve the capacity needs and labor challenges of modern factories.

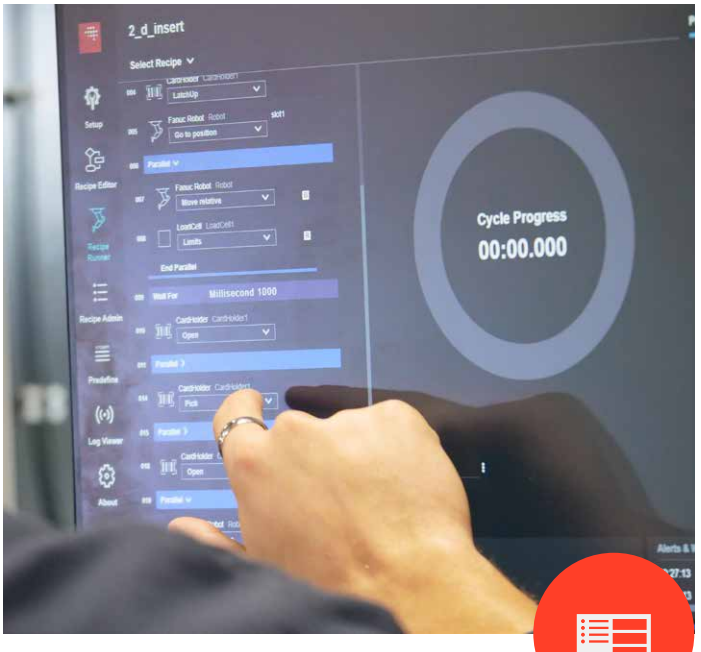
Increase capacity with predictable output by quickly automating error-prone, repetitive assembly and inspection tasks on your production line. With no programming required, Bright Machines® Microfactories can be configured using Brightware® Studio to implement factory-ready skills enabling the next generation of manufacturing.

01

BRIGHT MACHINES MICROFACTORY

02

BRIGHTWARE STUDIO



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Use skills that are factory-ready

Manufacture a variety of products

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Brightware® Studio

Brightware Studio gets you to market faster. With streamlined user flows for setup and configuration, assembly lines can be deployed in less time than traditionally required. Brightware Studio also enables optimizing your microfactory's settings and monitoring performance to ensure you get the best production results.

FEATURES	SETUP	CONFIGURE	OPERATE	
• Low/no code workflow	• User access permissions • Recovery rules	• Assembly instructions • Machine settings	• Production logs • Debug screens	
• Line monitoring and control	• Alerts and notifications • Connection to factory systems	• Data visualizations	• Line control • Equipment status • Track KPIs	

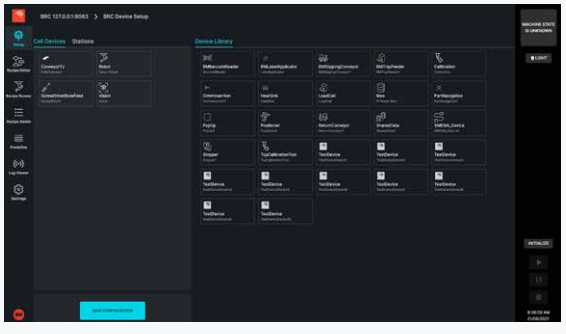
Deploy assembly lines faster

Bright Machines Way

FASTER TIME TO MARKET

SETUP › CONFIGURE › OPERATE

Brightware Studio



Bright Machines Microfactory

Traditional Way

ANALYZE › DESIGN › FABRICATE › ASSEMBLE › PROGRAM › INTEGRATE › DEPLOY

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Modular automation

FEEDING SYSTEM

- Tray feeder
- Bowl feeder

END OF ARM TOOLS

- Grippers
- Screwdriving
- Heat sink assembly
- DIMM insertion
- Dispensing
- Soldering
- Labeling
- Functional testing
- Bar code reading
- Inspection
- Tool changer
- And more…

ROBOTIC CELLS

- BRC70
- BRC35

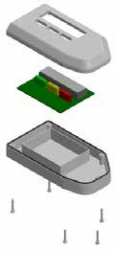
TRANSPORT SYSTEM

- Embedded conveyor
- Return conveyor
- Pallet elevator
- Extension conveyor

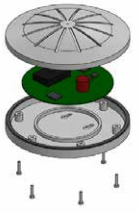
Bright Machines Microfactories are a modular and flexible system. Automation components, whether they are designed by Bright Machines or come from a third party, can be quickly configured to form flexible, scalable assembly lines. And when it comes time to wind down the production on a line, the automation components can be repurposed to build the next product.

Repurpose assembly lines faster

ORIGINAL LINE:
Assembling Product A



NEW LINE:
Assembling Product B



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Software configured robotic cells

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

There are two sizes of cells available, the BRC70 and BRC35, and they can be used together on the same line. Each BRC has a standard configuration which includes the chassis, electrical cabinet, robot arm, power supply, and touch screen display.

	STANDARD CONFIGURATION	
	BRC70	BRC35
Internal volume of chassis (excluding electrical cabinet)	70 cubic feet	35 cubic feet
External dimensions of chassis (excluding embedded conveyor)	1206 x 1505 x 2202 mm	850 x 1000 x 2200 mm
Floor footprint with service area	1206 x 4205 mm	850 x 3700 mm
Weight	900 kg	450 kg
Maximum pallet size	700 x 600 mm	700 x 450 mm
Maximum height of product assembled	220 mm	220 mm
Maximum product weight (including pallet)	15 kg	15 kg
Robot arm	Fanuc LR Mate 200iD/7L 6-axis, 7 kg payload	Nachi EZ03 4-axis, 3 kg payload
Power supply	200-230 VAC, 50/60 Hz, 5kW	200-240 VAC,50/60 Hz, 5kW
Touch screen display	21” monitor on adjustable arm	21” monitor on adjustable arm

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Automated material feeding

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.

The Tray Feeder 600 and Tray Feeder 305 are available in standard configurations which are compatible with the BRC70 fitting onto the back side of the cell. Other line specific options for tray and bulk feeding are also available.

	STANDARD CONFIGURATION	
	TRAY FEEDER 600	TRAY FEEDER 305
External dimensions of chassis	1355.5 x 780 x 2246 mm	1360 x 490 x 2246 mm
Floor footprint with service area	2090 x 780 mm	2090 x 490 mm
Weight	530 kg (no cart) 680 kg (cart with max payload)	450 kg (no cart) 650 kg (cart with max payload)
Maximum payload	6 kg per tray 150 kg per cart	12 kg per tray 200 kg per cart
Maximum number of trays	25	25
Maximum part size	560 x 380 x 200 mm	280 x 380 x 200 mm
Cycle time (switch tray)	6 seconds	6.5 seconds

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Automated material transport

Bright Machines Microfactories support conveyance. 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.

Pallet elevators are used in the line to transport pallets vertically between the embedded conveyor and return conveyor. Extension conveyors can be placed in the line where needed to accommodate human operator run stations or automated stations which don't require a cell.

	STANDARD CONFIGURATION	
	PALLET ELEVATOR	EXTENSION CONVEYOR
External dimensions of chassis	1119 x 921.5 x 1274 mm	1070 x 1400 x 1040 mm
Floor footprint with service area	2679 x 1500 mm	3770 x 1400 mm
Weight	220 kg	130 kg
Maximum payload	15 kg	15 kg (embedded conveyor) 10 kg (return conveyor)

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