FlexLoader™ M Product Introduction

Global Solution Center Machine Tending

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Agenda

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FlexLoader™ M Family

Global focus on machine tending solutions

Primary segments

Industrial machinery

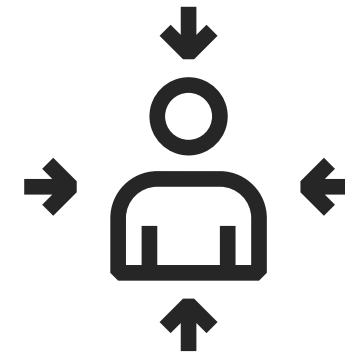**Foundry**

T1, T2 & T3

Metal fabrication

Automotive

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Machine Tending

Example of machining processes and workpieces

– **Milling**

– **Lathing**

– **Broaching**

– **De-burring**

– **Pressing**

– **Grinding**

– **Part-feeding**

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Key Market Trends

Individualized consumer

Labor shortage

Digitalization

Uncertainty

Manage complexity
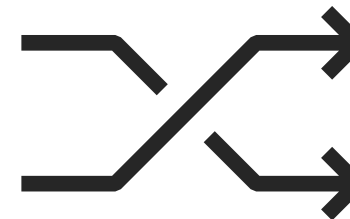
Increase flexibility

Accelerated by the pandemic

FlexLoader™ M
Product Range

6 feeding types

100+ configurations

60% increased productivity

Next-generation digital manufacturing

Tray	Conveyor	Random Feed	Bin	AGV	Zero Point
		COMING SOON	COMING SOON	COMING SOON	COMING SOON

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Six powerful feeding types

FlexLoader™ M Tray

The Power of Modularity

- 1 Main structure
- 2 Feeder
- 3 Robot
- 4 Robot stand
- 5 Accessories
- 6 Machine protection
- 7 Software
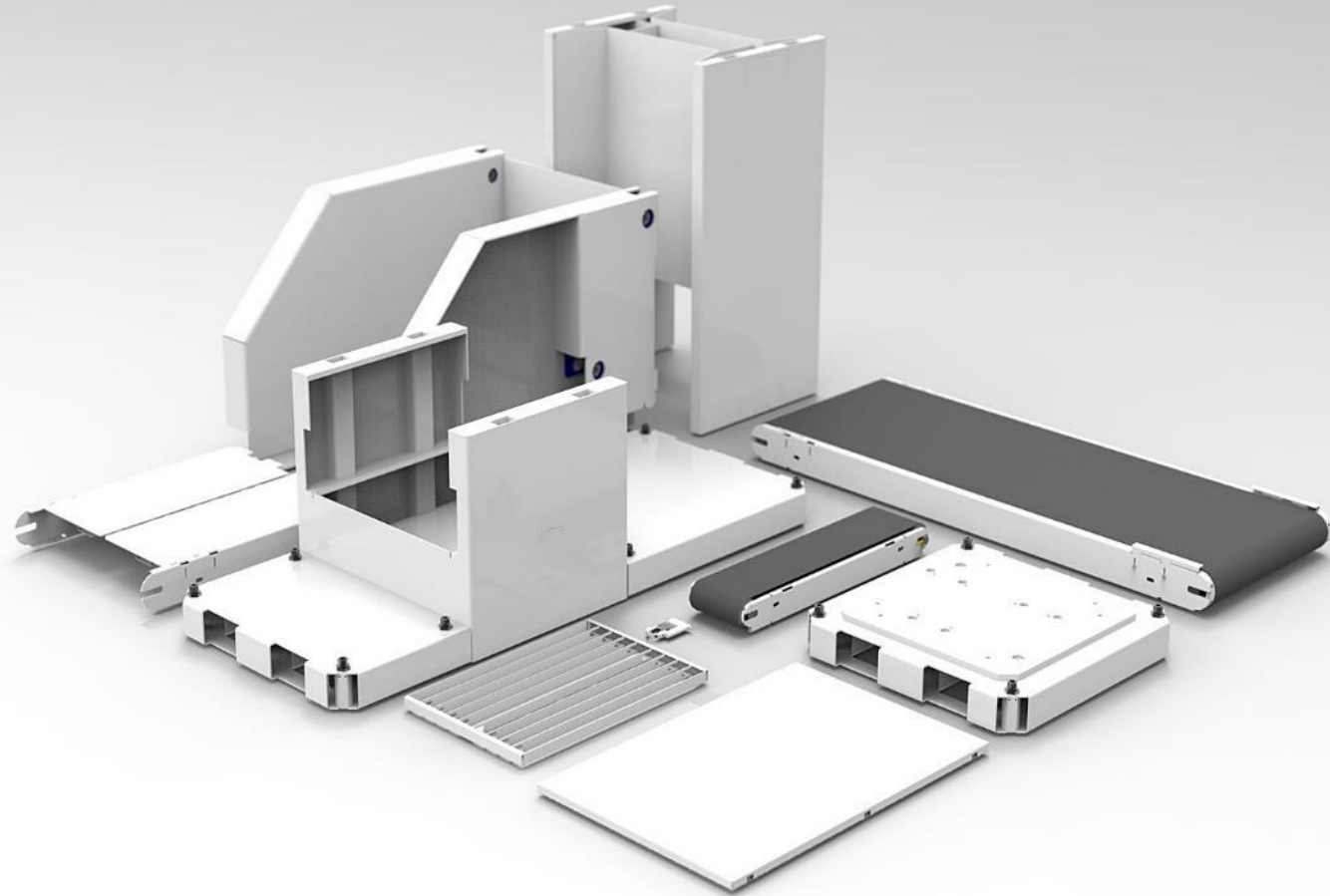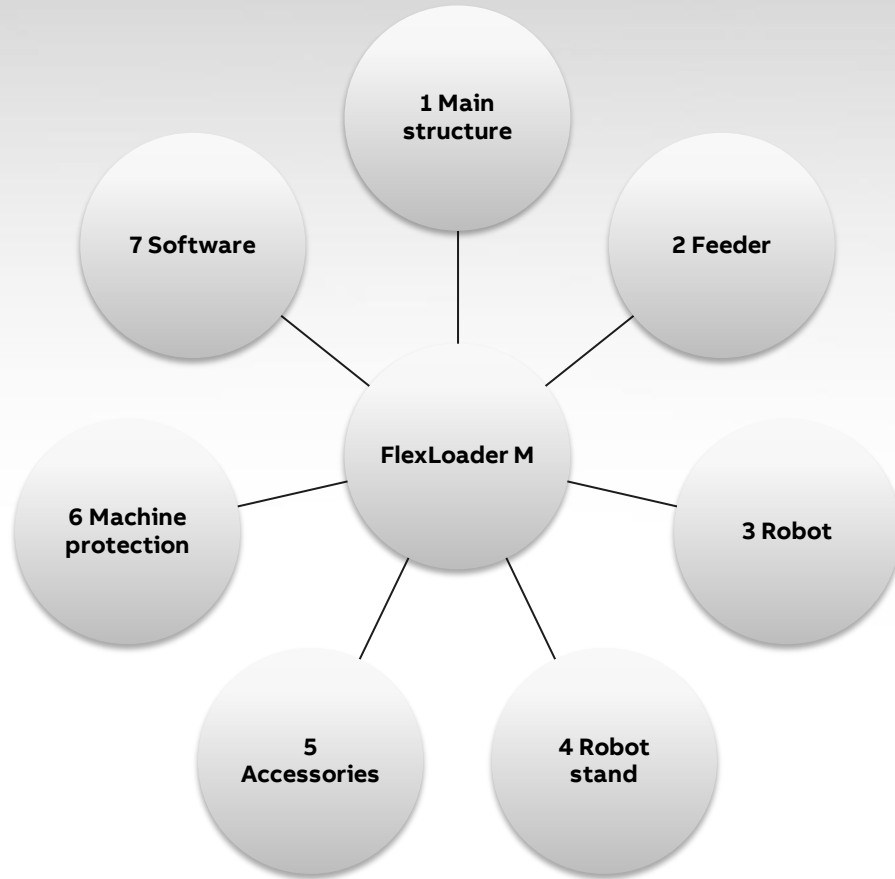
FlexLoader M

FlexLoader M Building Blocks

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Machine Tending
Operating principle

How the solution works:

1. The operator loads raw material in the infeed module and press start

2. The robot picks the workpieces and load the machine tool and communicates with machine to start machining.

3. The robot tends the machine when a workpieces is ready

4. The operator can remove the ready workpieces and load new pieces

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Why FlexLoader M?
Customer benefits

Great flexibility thanks to standardization

Future proof technology

High quality built on proven technology

Easy to move, install & adapt to new production demands

Long life time

Resale value x 10

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FlexLoader™ M
Key message

Flexibility & Modularity

Combine your solution for your need. Change module in future when your need is changed.

Simplicity & Ease-of-use

Super-easy intuitive software to teach-in new workpieces as well as handling the cell in general

Digitalization & Connectivity

Fleet management, Order management, cloud-based, OEE-module and future proof.

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FlexLoader™ M Tray

FlexLoader™ M Tray

FlexLoader™ M Tray
Benefits

Integrated touchscreen
with productivity dashboard

Offers easy machine tending
without vision guiding

Handling of workpieces with
dimensions 13 – 250 mm

Several variants of
robot and safety solution

Up to 133
workpieces per tray

Exchangeable trays
for quick reloading

Refilling of products
during operation

Standardized Electrical Cabinet
with Panel Mounted Robot Control

Easy setup and commission

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FlexLoader™ M Tray

2 Drawer front view

3 Drawer back view

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FlexLoader™ M Tray

Tray patterns for different geometries

2 ways of loading workpieces
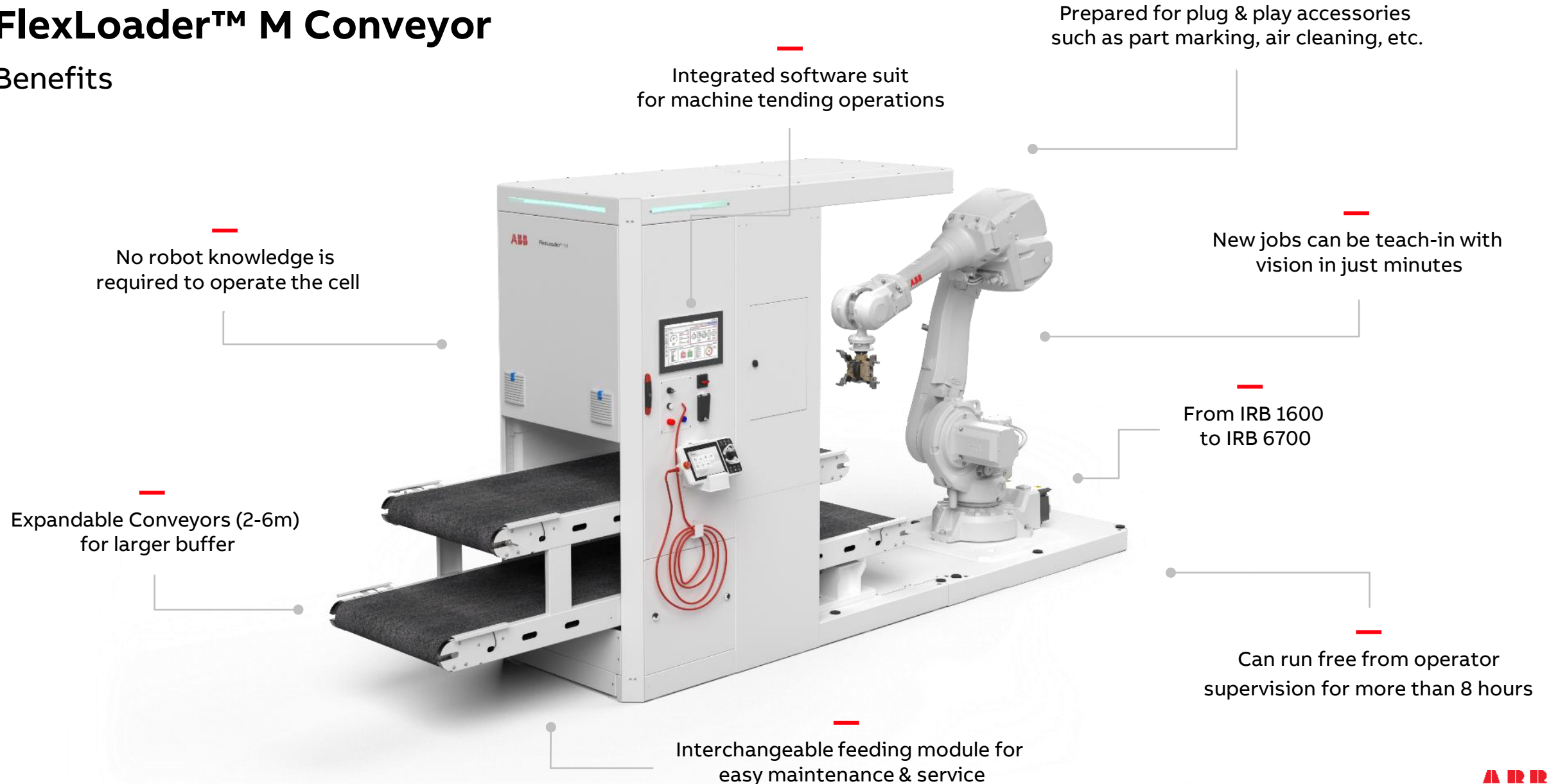
Whole tray or piece by piece

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FlexLoader™ M Conveyor

FlexLoader™ M Conveyor

FlexLoader™ M Conveyor

Benefits

Integrated software suit
for machine tending operations

Prepared for plug & play accessories
such as part marking, air cleaning, etc.

No robot knowledge is
required to operate the cell

New jobs can be teach-in with
vision in just minutes

From IRB 1600
to IRB 6700

Expandable Conveyors (2-6m)
for larger buffer

Can run free from operator
supervision for more than 8 hours

Interchangeable feeding module for
easy maintenance & service

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FlexLoader™ M Conveyor

Open front

One door

Twin door

Customized layout
with accessories

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FlexLoader™ M Conveyor

Feed up to three machines

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FlexLoader™ M Conveyor

Customize the length of conveyors

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FlexLoader™ M Vision

FlexLoader™ M Vision

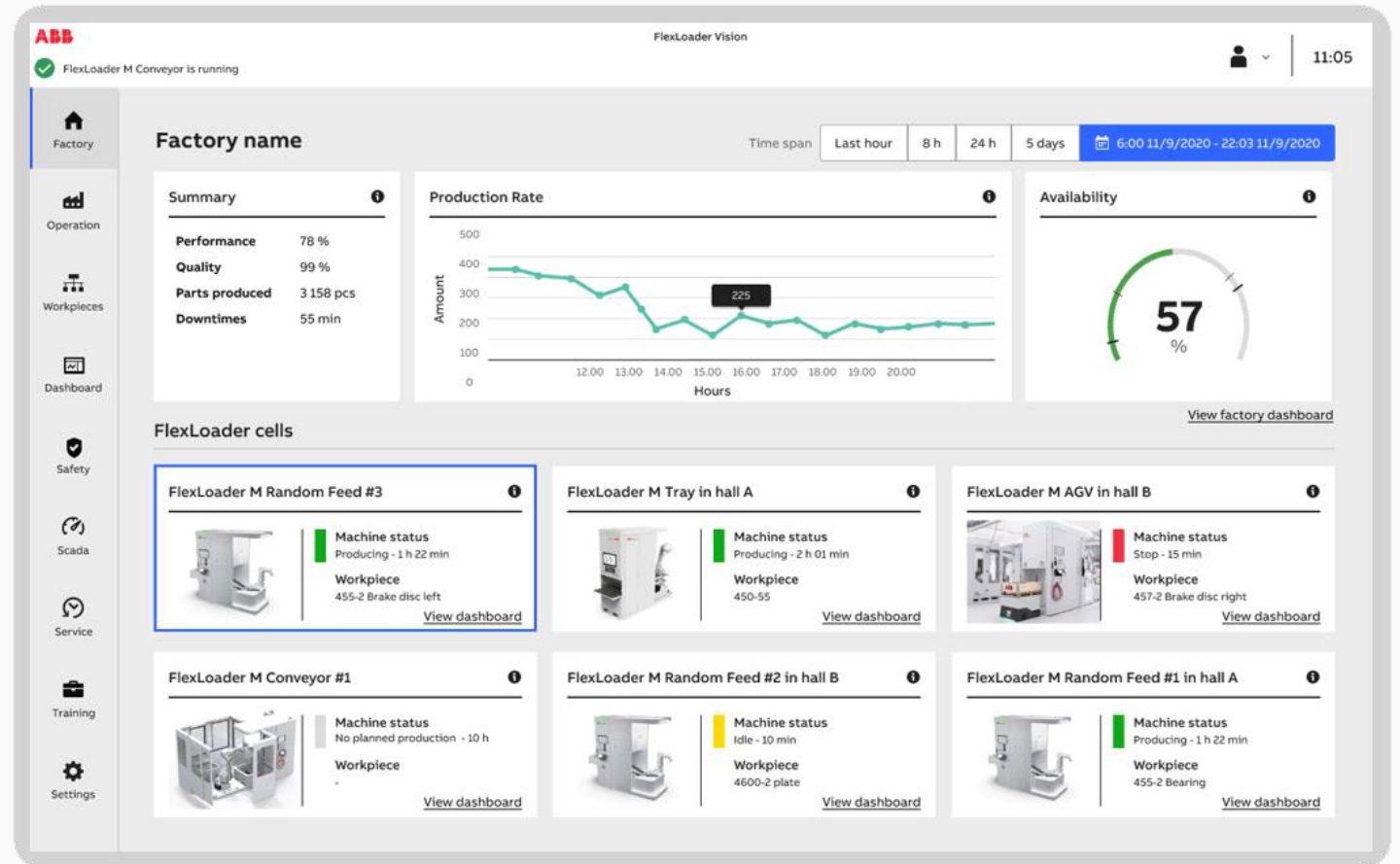Powerful vision system dedicated to robot guiding and machine tending

Teach-in time of new workpieces in less than 5 minutes

One of the easiest to use interface on the Market

Multiple digitalization tools included such as fleet management, order management, dashboards, safety center, and OEE-module.

FlexLoader M Vision Mobile

COMING SOON

Current status

What product is being manufactured

Amount of produced workpieces

Production overview

Alarm at unexpected production stops

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