FlexLoader™ M Product Introduction
Global Solution Center Machine Tending
Agenda

01. FlexLoader M Family
02. FlexLoader M Tray
03. FlexLoader M Conveyor
04. FlexLoader M Vision
1 FlexLoader™ M Family
Global focus on machine tending solutions

Primary segments

- Industrial machinery
- Foundry
- T1, T2 & T3
- Metal fabrication
- Automotive
Machine Tending

Example of machining processes and workpieces

- Milling
- Lathing
- Broaching
- De-burring
- Pressing
- Grinding
- Part-feeding
Key Market Trends

Accelerated by the pandemic

- Individualized consumer
- Labor shortage
- Digitalization
- Uncertainty

Manage complexity
Increase flexibility
**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

ABB
Six powerful feeding types

FlexLoader™ M Tray
The Power of Modularity

FlexLoader M Building Blocks
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
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
**FlexLoader™ M**

**Key message**

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**Flexibility & Modularity**

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

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**Simplicity & Ease-of-use**

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

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**Digitalization & Connectivity**

Fleet management, Order management, cloud-based, OEE-module and future proof.
FlexLoader™ M Tray

Benefits

- Integrated touchscreen with productivity dashboard
- Offers easy machine tending without vision guiding
- Several variants of robot and safety solution
- Easy setup and commission
- Standardized Electrical Cabinet with Panel Mounted Robot Control

Handling of workpieces with dimensions 13 – 250 mm
- Up to 133 workpieces per tray
- Exchangeable trays for quick reloading
- Refilling of products during operation
FlexLoader™ M Tray

2 Drawer front view

3 Drawer back view
FlexLoader™ M Tray
Tray patterns for different geometries
2 ways of loading workpieces
Whole tray or piece by piece
FlexLoader™ M Conveyor

Benefits

Expansible Conveyors (2-6m) for larger buffer

Integrated software suit for machine tending operations

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

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

From IRB 1600 to IRB 6700

Can run free from operator supervision for more than 8 hours

Interchangeable feeding module for easy maintenance & service

No robot knowledge is required to operate the cell

Can run free from operator supervision for more than 8 hours
FlexLoader™ M Conveyor

- Open front
- One door
- Twin door
- Customized layout with accessories
FlexLoader™ M Conveyor
Feed up to three machines
FlexLoader™ M Conveyor
Customize the length of conveyors
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

- Current status
- What product is being manufactured
- Amount of produced workpieces
- Production overview
- Alarm at unexpected production stops