FlexLoader™ M Conveyor
Opening new possibilities for modular robotic machine tending

The FlexLoader M Conveyor is a modular machine tending cell that increases machine tool utilization by as much as 60 percent while reducing operational costs. The intuitive software enables easy loading of complex workpieces for maximum unmanned operation.

The Power of Modularity
FlexLoader M is an innovative, flexible and easy-to-use family of machine tending cells that can be configured for all of today's challenging manufacturing demands. With a wide choice of functional modules, FlexLoader M cells can be easily adjusted to handle anything from automation of single workpieces through to pallet handling or large batches.

Best in Class – FlexLoader M Conveyor
The FlexLoader M Conveyor offers a highly flexible solution for handling a variety of workpieces with a single cell. With the option of one or two conveyor infeed modules, and featuring a powerful but easy-to-use vision system, the FlexLoader M Conveyor makes it easy to load a range of different low-batch workpieces with complex shapes. The conveyors can be customized in different lengths depending on buffer need.

Extend manufacturing time with unmanned shifts
FlexLoader M automated cells deliver machine utilization of least 97 percent, compared to 40 to 60 percent in most manually operated machines, enabling you to cost effectively extend your production hours and productivity.

Key Benefits

- Simple programming and operation with FlexLoader M Vision, a state-of-the-art software suite for machine tending operations featuring digitalization tools such as order management, downtime reporting & fleet management

- Minimal requirement for supervision, with up to eight hours of unmanned operation, depending on the workpiece size and cycle time

- Suitable for use in both low-batch and and high volume production, from tens to thousands of units, depending on the application

- Can tend up to three processing machines simultaneously

- Handle multiple orders in a row with the order management module

- Interchangeable feeding modules enable easy upgrading, maintenance and service when needed

- Smart wizard enables new workpieces to be introduced in minutes with no need for robot programming skills

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01
Example of open
front version with
wall-mounted robot
and floor scanner

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02
Example of twin
door version with
machine safety

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03
Example of tailored
version with
post-process accessories
and machine safety

Included in FlexLoader M Conveyor

- FlexLoader M Vision
  - Order Management
  - Fleet Management
  - OEE-module
  - Production dashboards
- Industrial PC with Windows 10 (EN)
- 16" Touch Screen Control
- 2D vision camera
- Calibration tools
- ABB robot depending on payload
  and reach
- Safety solution depending on need

Options	
Conveyors	1 or 2
Lengths of conveyors	2 to 6 m
Teach-In	2D vision or parametric
Suitable robot models	From IRB 1600 to IRB 6700
Type of Robot stand	Wall-mounted, short, long, tilted
Cell level	Function packages, standard cell or turnkey cell
Post-process accessories	Deburring, air-cleaning, washing, measuring, statistic outlet
Safety / Machine Protection	Floor scanner, doors & panels

Technical information	
Length (mm)	From 3 141 depending on conveyor length
Width (mm)	1 060
Height (mm)	2 408
Weight without robot (kg)	1900
Belt width (mm)	795
Max workpiece height (mm)	290
Max belt load (kg)	500 (standard) 1500 (option)
Certificates	UL/CSA, Prep. for CE labelling 2B
Mains voltage	220V – 600V
Operating temperature	Max 45 C (std) Max 52 C (option)
Machine tool interface	Safety interface, Digital 24V I/O, 16 IN and 16 OUT

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