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ROBOTICS

FlexLifter IRL 600
Programmable scissor-lift table

The FlexLifter IRL 600 is designed to improve accessibility of the part by adding a programmable degree of freedom to the Flextrack IRT501-66 track motion. It is possible to use the unit to position a part tooling in front of the process robots. The unit can also be used also as a stand-alone module.

Robotic vertical lifting systems
High capacity, compact design, simple service and low maintenance cost – the FlexLifter can replace custom made machinery with a modulated, flexible, and standardize product!

The module design allows the lifter to be combined with a rotation unit or mounted on the FlexTrack to provide a complete range of solutions for any industry.

High performance
The FlexLifter IRL 600 integrates a powerful and compact servomotor equipped with a high quality gear, allowing high acceleration and speed.

Complete protection
The FlexLifter has an enclosed drive chain making it suitable for harsh industrial environments.

Modularity
The Lifter is one of the additional axes available for FlexLean, ABB's concept of modular BiW lines. The Flexlifter can be used also as a stand alone module.

Easier installation, maintenance, and use
The FlexLifter has been carefully engineered with installation and maintenance in mind. It includes easy access to the motor and minimal maintenance parts.

The upper plate of is adapted to material handling applications. The lower plate is designed to adapt directly onto the carriage of ABB's FlexTrack IRT501-66.

The FlexLifter movements are programmed like a conventional axis using the robot controller interface.

Simple concept
The FlexLifter IRL 600 is based on a generic scissor lift table concept. However the hydraulic actuator has been replaced by an Electro-Mechanical Cylinder (EMC), to allow for fast movements and high payloads without the constraints of hydraulic actuators. Using a proven servomotor, the FlexLifter is driven by IRC5 robot controller as a part of ABB robots product range.

Options
The FlexLifter is a modular design and comes with several variants of different payload. There is also the possibility to add a rotation unit integrated inside the lifter to rotate the work-piece for better accessibility. The complete Lifter units can be mounted on the floor as a stand-alone unit or added on top of the FlexTrack.

Robot based technology

The FlexLifter uses the same IRC5 robot based technology as other ABB Robots. This means that no special software or training is required. Robot programmers and maintenance personnel can immediately begin to use the product with the same interface they are used to.

This also allows the lifter speed, acceleration, and stopping positions of the top plate to be programmed. This makes the lifting system smart and re-useable.

Typical application areas

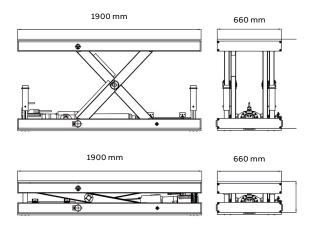• Part positioning in Automotive industry
• Machine tending
• Packaging

Working envelope

FlexLifter IRL 600

Specifications

Payload	600 kg
Stroke	600 mm

Characteristics

Number of axes	1
Protection	IP54
Mounting	Floor mounted or on FlexTrack carrier
Speed	200 mm/s

Dimensions & weight

Overall dimensions	1900 x 660 x 320 mm
Weight	750 kg

Environment

During production	+5°C to +50°C
During storage	-25°C to +55°C
Humidity	Max. 95%
Conditions	Automotive bodyshops (dust, fumes, splatters)

* Data and dimensions may be changed without notice

Fixing mask