

Highly dynamic Miniload

Energy saving and reduction of feed-in power by using SuperCaps

Flexible scalability due to innovative, modular mast design

Maximum utilisation of space due to lowest approach dimensions in its class

Reduced operating costs due to innovative drive concept and principle of identical parts



## Jungheinrich Miniload STC 2B1A

Thanks to its high-performance values, the Miniload STC 2B1A for automated small parts warehouses is designed to maximise efficiency in your warehouse. Integrated energy storage and an innovative design ensure excellent space-saving storage of small parts in containers, trays or boxes.

The Miniload from Jungheinrich offers significant advantages in comparison with conventional Miniloads. The STC 2B1A impresses both with its outstanding driving dynamics as well as with reduced approach dimensions. Thanks to its consistent lightweight construction and the use of energy storage devices (SuperCaps) specially adapted to driving characteristics and load response, the STC also scores highly with maximum energy efficiency and minimum consumption.

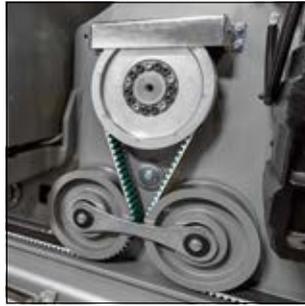
As part of the drive configuration, the SuperCaps allow for particularly intelligent and cost-effective energy management: Energy released during braking processes is stored in the unit's SuperCaps and fed back to the drive system for subsequent acceleration processes. This ensures a marked reduction in connection and feed-in power and leads to significantly reduced operating costs.

The warehouse volume is also considerably increased, as the STC 2B1A offers the lowest approach dimensions in its class thanks to its innovative rail construction and the Omega drive system integrated in the mast base. In addition, the novel, modular mast design allows for flexible scalability of the Miniload.

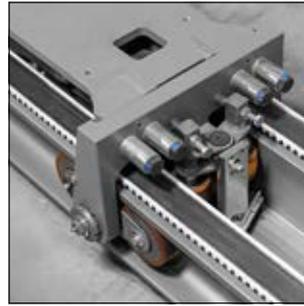
# Benefit from the advantages



Maximum efficiency thanks to storing of braking energy in Super-Caps



Omega drive integrated in the mast base for minimum approach dimensions



Revolutionary rail construction for maximum warehouse volume



Energy-efficient lightweight construction using aluminium extrusion profiles

## Highest performance data in its class

The STC 2B1A is the world's most powerful Miniload in its class. With a travel speed of more than 6 m/s and maximum acceleration of more than 5.3 m/s<sup>2</sup>, the goods throughput, i.e. the number of storage or retrieval operations per hour, can be increased significantly. This ranks the STC 2B1A among the very best of high-performance equipment.

## Maximum energy efficiency

SuperCaps are energy storage devices integrated in the unit, which store the energy released during braking processes and very quickly release it again for acceleration phases. In contrast to the use of braking resistors, the DC link system with SuperCaps can reduce the energy requirement and associated provisioning costs by up to min. 25 %. The connected load can therefore be reduced by up to 50 %.

## High scalability

The innovative design and the extremely lightweight construction of the mast were achieved using very light aluminium extrusion profiles with cross braces made from cast aluminium. This allows a low total weight of the Miniload and a flexible scalability of the mast. Within the entire Miniload 'family' a mast height of 25 metres can be reached.

Parameters	STC 2B1A
Maximum mast height	14 m
Maximum load	2 x 50 kg
Travel vx	6 m/s
Travel ax max.	5.3 m/s <sup>2</sup>
Lift vy	3 m/s
Lift ay max.	4 m/s <sup>2</sup>
Lower approach dimension	460 mm
Upper approach dimension	660 mm
Approach dimension FAD + RAD (incl. buffer length)	4,500 mm
Max. aisle length	110 m
Ambient temperature	+ 2 °C to + 40 °C

## Maximising warehouse volume

Due to the structural design of the guide rail, the floor beam is embedded as a carriage in the rail, significantly reducing the upper and lower approach dimensions. The running surface of the main wheels is only about 55 mm above the floor instead of the market standard of 150 to 250 mm. Another novelty is the space-saving Omega drive integrated in the mast base. Thanks to its narrow, lightweight design, the two-strand drive can be accommodated between the control cabinet and the mast. As a result, the front and rear approach dimensions are also significantly reduced.

The STC 2B1A therefore achieves the lowest approach dimensions in its class. The result: maximised warehouse volume.

## Minimising operating costs

Using SuperCaps makes it possible to save the energy released during braking and make it usable again. This enables the Miniload to level out the enormous peaks in consumption that occur during acceleration and deceleration. As a result, the feed-in power can be halved. This means significant cost savings in terms of both energy supply and energy consumption.

The entire Miniload 'family' is based on the same principle. This means that more than 80 % of all components are also used in other Jungheinrich Miniload models. Maintenance and possible repairs can thus be carried out quickly and easily by the Jungheinrich Service. This in turn leads to minimised operating costs and a high availability of the system.

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The colours of the products shown may differ from the actual colours. Some of the photos show options.

The German production facilities in Norderstedt, Moosburg and Landsberg are certified. **ISO 9001**  
**ISO 14001**

Jungheinrich trucks conform to the European Safety Requirements.

