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2-AXIS SERVO LEHR LOADER

Type 4205



THE 2-AXIS SERVO LEHR LOADER

The Servo Lehr Loader Type 4205 has been designed for the application at hollow glass production machines with a speed of max. 600 articles/minute. It pushes the articles by means of a push bar from the cross conveyor to the lehr belt.

Function

The movement of the push bar is carried out by two programmable electrical servo drives. Thus, the movement can be adapted to the features of the article to be pushed into the lehr.

A link system is connected by a swivel frame and carries out the loading movement via a crank drive.

At the beginning of the loading movement the push bar moves in direction of the transport conveyor movement. At the end of the loading movement the articles are pushed in direction of the cross conveyor movement.

Loading movement

By the overlapping of the cross and longitudinal movement and the rotary movement of the link system the articles are guided by the push bar in such a way, that no interfering relative movement between article and transport conveyor appears.

Due to the design of the Lehr Loader portal the continuous arrival of the articles is not impeded.

At the end of the loading movement the portal including push bar is tilted and completely lifted by a servo motor driven crank drive. After the swivel frame has returned in front of the articles that have already arrived, the portal is lowered again for the next loading movement.

Options

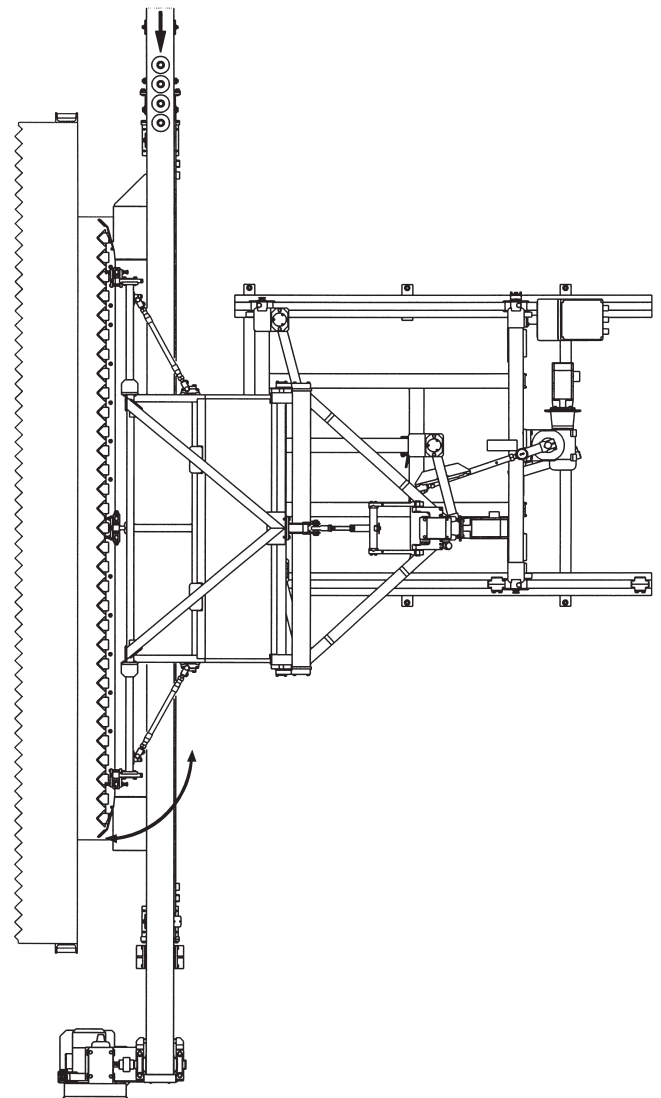
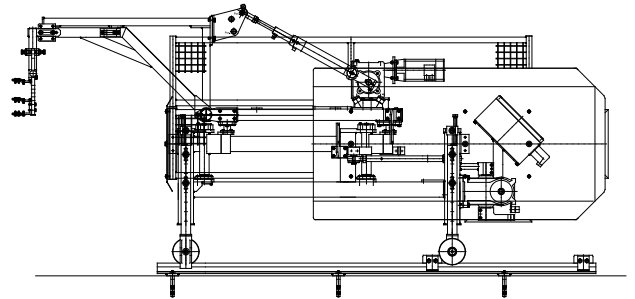
By changing the crank and by parameter settings via the control it is possible to set loading depth values between 290 mm and 394 mm.

By changing the position of the pivot point at the Lehr Loader portal and by parameter settings via the control it is possible to set the lifting height of the push bar between 275 mm and 392 mm.

For adjustments the Lehr Loader can be moved on rails. The front stop determines the operating position, the rear stop shall guarantee that the Lehr Loader does not move from the rails.

Installation

The Lehr Loader is installed on rails which are doweled on the floor. Thus the Lehr Loader can be moved easily from its operation position into the service position. During operation it is fixed with clamps.



CONTROL UNIT

To control the servo motor the Heye Simotion® Servodrive is used. Also please see product description

“Heye Simotion® Servodrive”

Heye Simotion® Servodrive

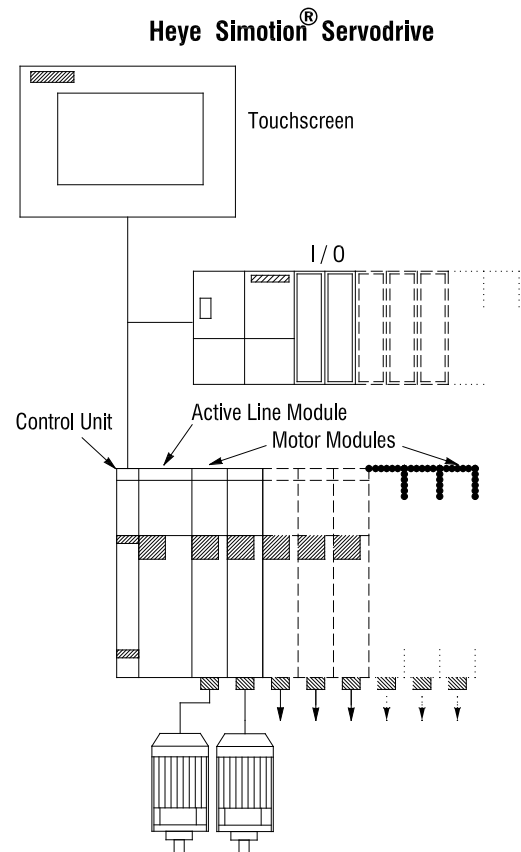
This highly-flexible control is based on the future-proof multi axis drive System Simotion® of Siemens. Excellent reliability of the electronic components in combination with the application of a compact servo motor with robust resolver guarantee a reliable non-stop operation. Even with respect to servicing this control is perfect as it is easy to handle. If control components should have to be exchanged complicated manual addressing or programming is not necessary because the configuration data are stored on a memory board. When the control is started the data are automatically transferred. Hence, the commissioning times and downtimes in case of servicing are short, the training effort for the service staff is less. Fault and operating messages that appeared are registered by the control unit with date and time and can be read in detail on the touchscreen anytime.

The Lehr Loader is cyclically started by two intermittently operating servo motors. (The drive motors are stopped after each loading cycle and are started again by a signal). Depending on the pulse signals and the desired number of rows the start / stop sequence of the Lehr Loader sets automatically.

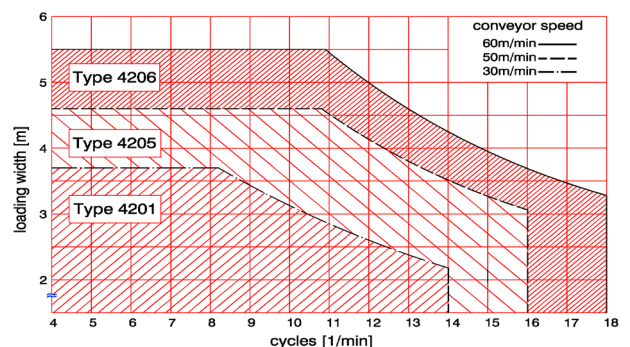
The lifting axis of the Lehr Loader is driven independently from the loading axis.

Directly at the Lehr Loader the control box (“remote control”) is installed. At this control box a fine adjustment for different parameters is possible - considering the influence on the Lehr Loader.

The control can be upgraded: in addition to the Lehr Loader almost all drives of the following Heye equipment can be combined in one control unit as desired: Stirrer, Plunger, Gob Distributor, Machine Conveyor, Ware Transfer, Cross Conveyor and Lehr.



Range of application of diverse Heye Lehr Loaders



Type 4206: intermittent drive with three servo motors

Type 4205: intermittent drive with two servo motors

Type 4201: continuous drive

OVERVIEW

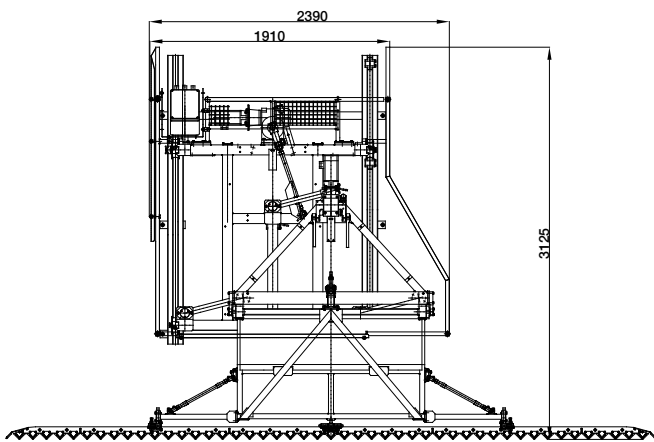
Advantages

- Suitable for a high number of cycles
- For larger lehr widths
- Angular speed during loading variable
- Low-vibration design
- Fixed position during operation
- No compressed air needed

Scope of Delivery

- Lehr Loader
- Protections
- Control box
- Control Heye Simotion® Servodrive Type 4520 with touchscreen
- Cable set

Main dimensions



Technical Data

- Speed up to 16 cycles/minute
- Max. number of articles approx. 600/minute
- Max. article height 390 mm
- Stroke in lehr direction 290 mm - 390 mm
- Length (in lehr direction, in starting position) approx. 2700 mm
- Width (without push bar) approx. 2350 mm
- Height at a lehr belt height of 1000 mm approx. 1570 mm
- Lehr belt height between 800 - 1380 mm
- Max. push bar width 4500 mm
- Weight approx. 340 kg

Control

- Dimensions width/height/depth 800 / 2200 / 600 mm
1000 / 2200 / 600 mm
1200 / 2200 / 600 mm
- Weight 320 - 400 kg
- Power input with two active ventilators depending on the number of axes
- Cables to the control cabinet 4 x 6 mm²
- Mains supply three-phase 380 - 480 V ± 10 % PE, no neutral wire
- Mains frequency 50/60 Hz ± 3 Hz
- Mains fuse 35 A slow-blow (to be made available by the customer)
- Ambient temperature for the control unit max. 35°C

Emissions

- The A-weighted permanent sound pressure level of this system is below 70 dB(A)

Illustrations are non-binding and may include optional equipment. Products are subject to continuous technical modifications.

The mentioned consumption values are non-binding and are subject to the customer's individual production program.

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