

WE ARE GLASS PEOPLE

3-AXIS SERVO LEHR LOADER

Type 4206



THE 3-AXIS SERVO LEHR LOADER

The Lehr Loader Type 4206 has been developed for the use at IS-Machines with very high production speeds. The push-bar is actuated in its cyclic pattern by three programmable electric servo motors. This permits the optimised adaption of all movements to the needs of bottle handling. The type of drive units and a central lubrication system for all bearings guarantee long-term operation without any readjustments or maintenance.

Function

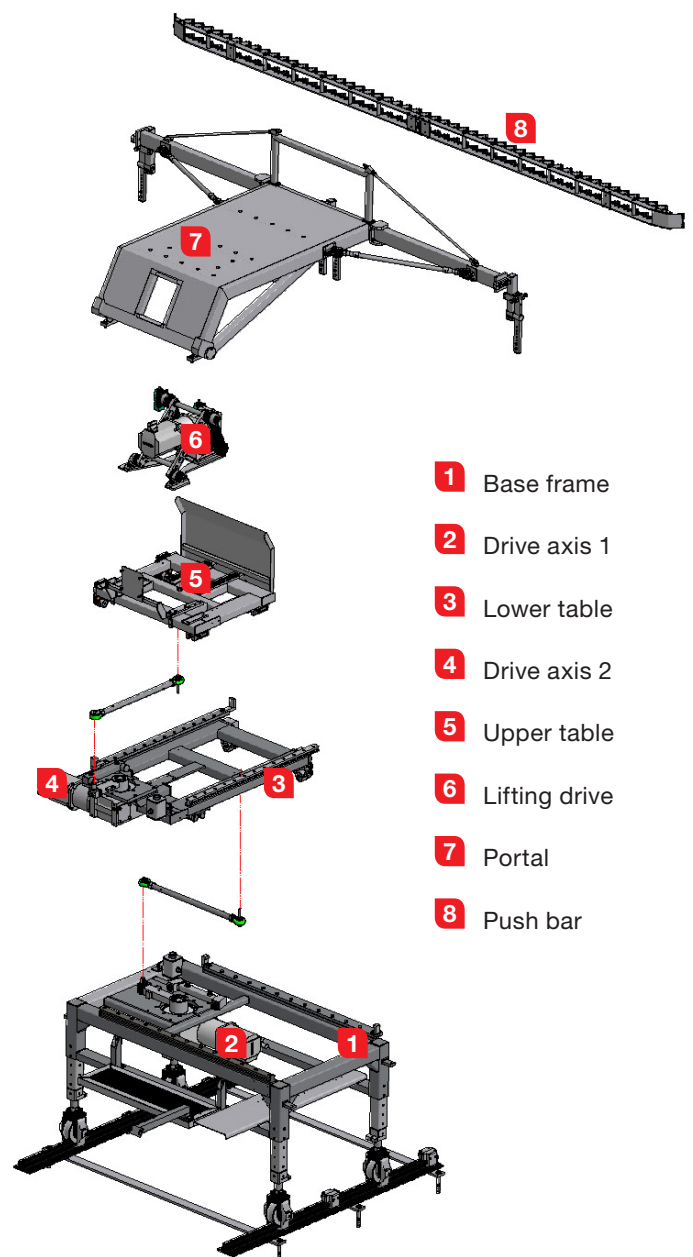
The loading movement is generated by the overlapping of the straight movement of two tables which are displaced by 90° to each other. Both tables form one cross slide. They are driven by a crank drive with Heye Simotion® Servodrive. The rotation of the drive motors is controlled by pre-determined speed-position-curves which can be set by means of the Heye Simotion® Servodrive control unit. Lifting and lowering of the push-bar is carried out by a third servo drive. Cross slide and lifting/lowering portal with belonging drives are mounted on a robust frame.

Installation

The Lehr Loader is installed in front of the lehr on two rails screwed on the floor. It is mounted on four track rollers and can be easily moved out of its operating position for push-bar adjustment or change. During operation it is fixed in its position with rail clamps.

Lubrication

All bearings as well as contacting roller surfaces are supplied with grease via a central lubrication unit. The lubrication is effected periodically via the control system. The lubrication process and the filling level of the storage tank are monitored.



- 1 Base frame
- 2 Drive axis 1
- 3 Lower table
- 4 Drive axis 2
- 5 Upper table
- 6 Lifting drive
- 7 Portal
- 8 Push bar

CONTROL UNIT

To control the servo motors the Heye Simotion® Servodrive is used (please also see product description “Heye Simotion® Servodrive”).

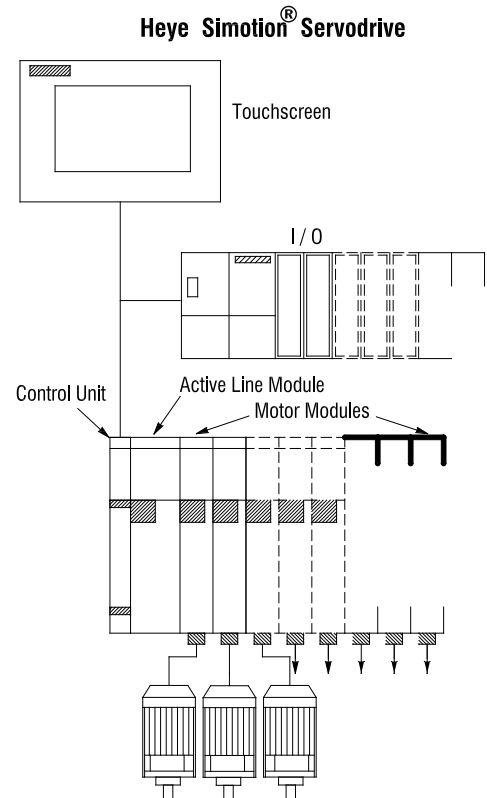
Heye Simotion® Servodrive

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.

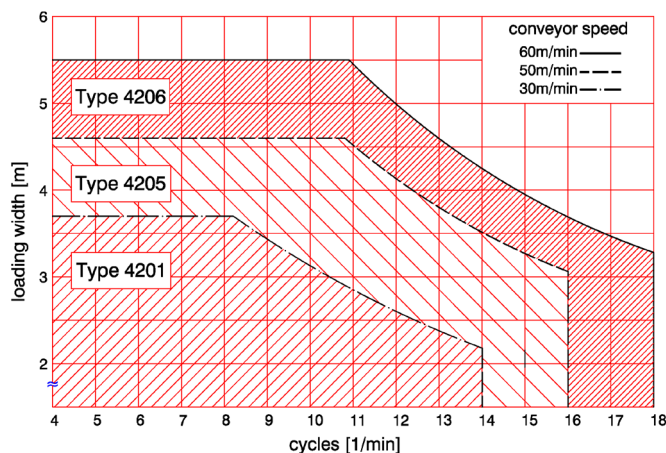
Synchronisation of the Lehr Loader with the machine is effected by the shear cut signal.

The basic adjustment of the push-in pattern is set automatically after input of article distance and number of rows in the Lehr.

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.



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

- Simple operation
- Low-maintenance operation
- Servo drives for the three axes
- Suitable for a high number of cycles
- Stroke between min. and max. infinitely adjustable
- Especially designed for very wide lehrs
- Suitable for "closed" lehrs
- Low-vibration design
- Robust design

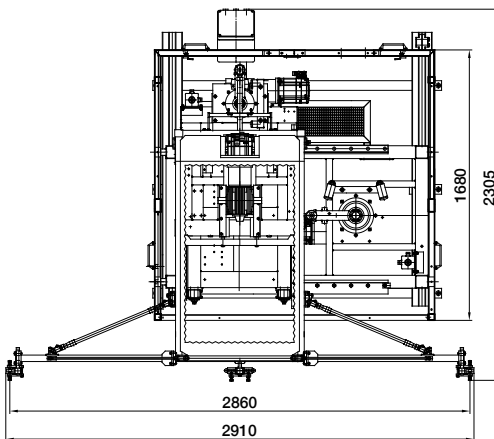
Scope of Delivery

- Lehr Loader
- Control box
- Control Heye Simotion® Servodrive
- Cable set
- Central lubrication

Options

- Push bar
- Rails

Main Dimensions



Technical Data

- Speed up to 18 cycles/minute
- Max. number of articles approx. 800/minute
- Stroke in lehr direction 420 mm
- Stroke in conveyor direction 550 mm
- Lifting height of the push-bar 380 mm
- Length / width / height 2075 / 2875 / 1530 mm
- Weight approx. 500 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 400 - 480 V ± 10%
PE, no neutral wire
- Mains frequency 50/60 Hz ± 6%
- Mains fuse 35 A slow-blow (to be made available by the user)
- 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)