

WE ARE GLASS PEOPLE

HEYE

3-AXIS SERVO PUSHER

Type 2158



h heye
international

3-AXIS SERVO PUSHER

The 3-axis Servo Pusher Type 2158 is part of the Heye Modular Servo Technology (HMST). It is used in IS-Machines with up to 24 sections.

Description and function

The advantage compared with pneumatically driven pushers is that the push-out and retract movement of the pusher fingers is carried out controlled and reproducibly.

The Pusher has three independently operating servo axes that act as direct drive. Thus, the axes only need few drive elements.

The modular design allows a simple conversion from right to left-hand operation and significantly reduces maintenance and repair time.

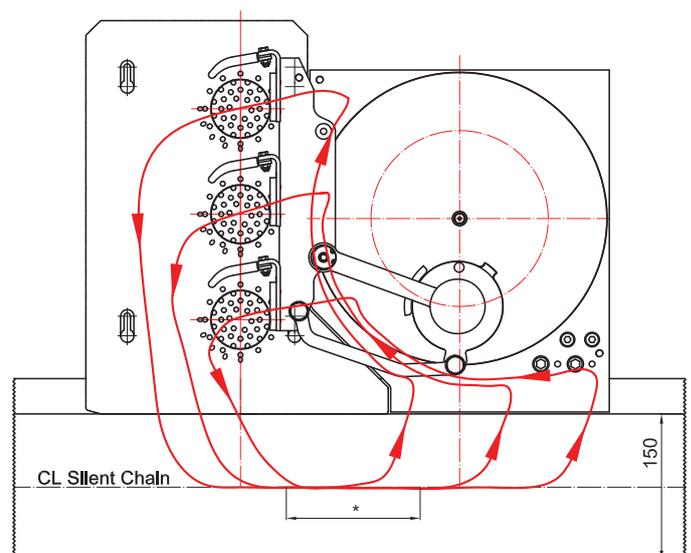
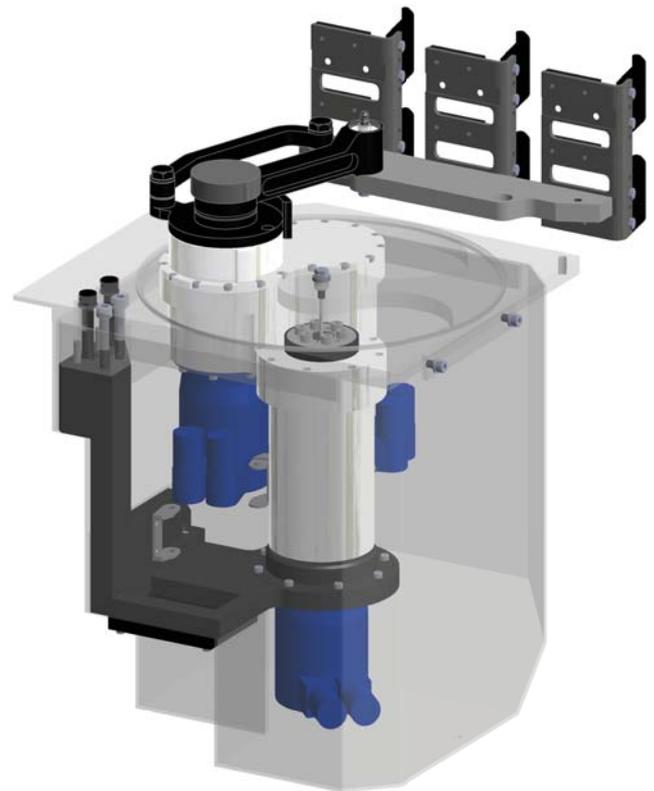
As the Pusher only consists of a few components the weight is very low. Mounting and demounting are safe and easy to handle.

Depending on the weight of the glass containers and on the production speed the Pusher can be operated without pneumatical means eliminating the risk of bottle deformation by compressed air or vacuum.

By the asymmetric design of the dead plate and by using a 150 mm wide toothed chain the push-out way on the dead plate cross to the machine conveyor is increased so that the glass containers can be directed in transport direction of the machine conveyor. The centrifugal force of the push-out movement is reduced and the bottle can be accelerated optimally.

Motion profile of the Pusher and main installation dimensions

*)Responsible for an ideal article push-out and a collision-free retract of the pusher fingers is a motion phase where the fingers of the Pusher move parallelly to the machine conveyor.



HEYE MODULAR SERVO TECHNOLOGY (HMST)

The HMST is a trend setting drive concept to control servo drives in the IS-Machine and their periphery.

HMST

The modular system design allows a system-specific solution including the option to be upgraded.

The standard system consists of:

- An infeed cabinet and a module cabinet (optionally cable cabinet).
- A PC with process visualisation and the option to link several Heye Hot End Drives.

HMST main menu

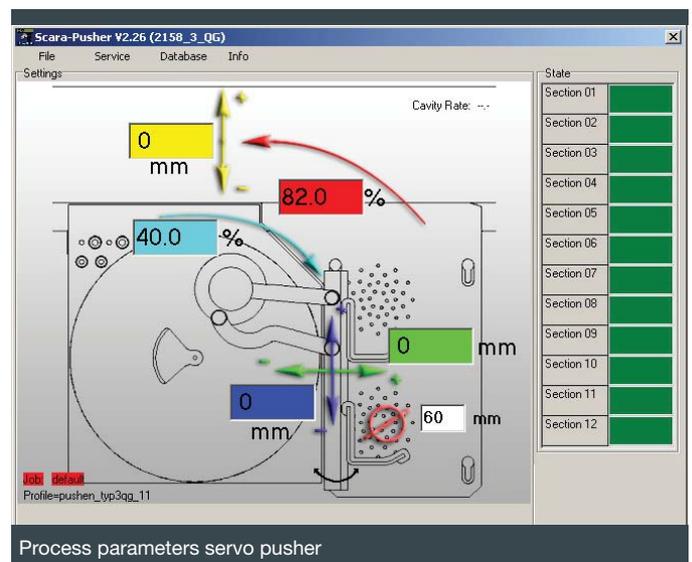
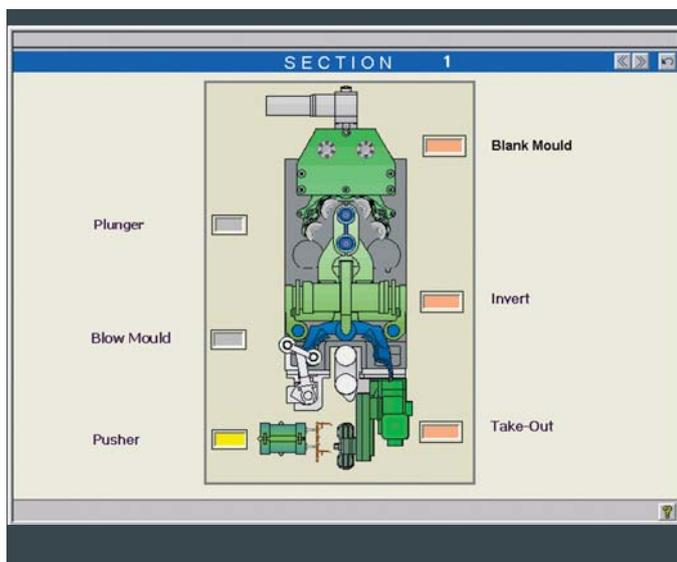
You can reach the menu level of a section or of a peripheral device by clicking on the relevant display in the main menu.

Menu of a machine section

The menus of the individual servo mechanisms can be opened by clicking on the corresponding display.

Advantages of the process visualisation

- Independently operating visualisation and real time control
- Easy access on all parameters
- Article administration for all process parameters allows short job change times
- Error report for all systems connected
- Option to link several Heye Hot End Equipment via CAN-Bus / Ethernet makes the entire system easy-to-follow
- Use of Windows® as operating system on a standard PC



OVERVIEW

Advantages

- Service reduced operation, minimum wear, long lifetime
- Simple operation of the Pusher by setting the parameters via dialogue:
Motion and speed profiles can be adapted to the article geometry and transport speed even during operation
- Compressed air to influence the article transport is not obligatory. If, nevertheless, compressed air should be needed due to production speed and weight of the article, "Integrated Pocket Air" is used. The dead plate is equipped with an air distributor to cover this option
- Most of the movable parts are located below the machine conveyor level inside the pusher housing protecting them from environmental influences such as heat or dirt
- Quick and simple exchange of the entire finger support including fingers
- Pusher fingers made of carbon composite material (stainless steel on request)
- In case of a collision and resulting position loss the Pusher returns to its home position to avoid affecting the bottle transport of neighbouring sections. After a blocking the Pusher restarts automatically
- Switching output available to switch the gob off or to stop the section if the Pusher completely fails
- Coupling with any IS E-Timing possible
- Available for SG, DG, TG and QG applications

Technical Data

- Machine conveyor speed up to 80 m/min. possible depending on the glass container approx. 37 kg
- Weight of the unit
- Dimensions of the unit width / height / depth 305 / 450 / 350 mm
- Ambient temperature for the control cabinet max. 35°C
- Dimensions of the control cabinets width / height / depth:
Infeed cabinet 400 / 2200 / 600 mm
Module cabinet 800 / 2200 / 600 mm
- Mains connection three-phase, 50 Hz with neutral conductor
- Voltage 400 Volt
- Current consumption approx. 250 VA per sec.

Emissions

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