

GLASSWORKS TECHNOLOGY · PARTS · SERVICE

DAO STACKER MK 10



FLUX VECTOR LEHR LOADER

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The DAO MK10 Stacker with its flux Vector Inverter control of the stacking motion fits ideally into the market place. It can out perform the mechanical and electrical controlled stackers and is a serious rival to the servo-controlled stacker, with its flexible controlled push cycle, adjustable on the run, whilst being far cheaper. The design is simple and easy to maintain, requiring minimum spares and maintenance making it extremely reliable.



Figure 1.MK10 Stacker.

There are three frame sizes to cover lehr widths from 1.5 to 4.0 meters with a cycle speed up to 14 per minute.

The Stacker is driven by a 3 phase 1.5kw electric motor directly mounted onto a Lenze reduction unit with torque limiter.



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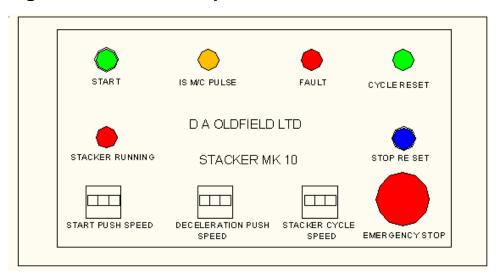
The control panel supplied with the machine and shown in figure 2 is for remote mounting or can be mated on the side of the stacker. It houses all the components to synchronise, run and control the stacker, including inverter and programmer.



Figure 2. Control panel.

The facia (figure 3) has start stop buttons and numerical thumb wheel switches for Start push speed, deceleration speed and return cycle speed. It also includes an ETS signal light to prove a trip signal has been given; a fault light to indicate the stacker has stopped unexpectedly; a safety stop reset button; this allows the operator to then push the cycle reset button which will bring the stacker back to the start position slowly. At this point the operator can push the main start button to resume the cycle start. There are four emergency stop systems one on the facia front and one on the panel, and two on the sliding doors using cut off switches.

Figure 3. Facia control panel.





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FEATURES

- Variable rate of acceleration of the push bar during its stacking motion via programmable Flux Vector inverter drive.
- Push button control on acceleration of the push bar.
- Push button control on deceleration of the push bar.
- Push button control on the return of the push bar to the start position.
- Adjustable dwell time of the push bar at the end of the push.
- ☼ Soft start and stop of the push bar cycle.
- Magnetic motor stop brake at the end of the return cycle.

BENEFITS

Smooth transfer of glass from the cross conveyor into the lehr. Reduced wear on drive shaft.

This control allows the change of the speed that the push bar starts to push the bottles towards the lehr.

This control allows the change of the speed that the push bar decelerates into the lehr mouth. To prevent bottles falling.

This control allows the change of the speed that the push bar returns back to the start position.

This control allows the push bar to stop in the lehr at the end of the push stroke, to create a gap so the push bar does not touch any ware on it's return to the stop position.

This smooth operation prevents wear of the whole mechanical machine and prevents bottles falling.

This prevents movement of the push bar during these two events, it helps whilst changing push bars and prevents the push bar over shooting the start position.



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Manual and automatic cycle reset system.

If the machine has a power cut or crash, the obstruction can be cleared. Then push the reset button and the machine will slowly return to the start position. This can be done manually in the event of a power cut.

☼ Visual display of ETS trip signal and proximity detector lights.

This is very useful when there is a machine fault, it is a fast way to see that the stacker is receiving the signal from the ETS and that all the proximity detectors are working.

☆ Cam operated push bar side shift and lift with hydraulic damper controlled fall to rest position. Choice of cams to keep push bar lift to clear the minimum height of the bottles, this reduces mechanism movement.

☆ Cam operated ware steady for small and unstable ware. Ware steady angle insulated with stainless steel woven-cloth. Insulated ware steady reduces risk of damage to neck finish, particularly good for flasks.

Synchronized with production by 24vdc trip pulse from the IS Machine electronic timing.

Ensures perfect repeatability of operation 24 hrs/day.

Selection of push bar designs, plain or serrated, carbon or stainless-steel cloth insulation. Use of new cloth insulation technology can reduce glass damage and costs less.

☼ Fabricated rugged frame fitted with stainless steel heat shields.

Cost effective method of manufacture and long-term protection against heat.

Internal lubrication pipe work and injectors for connection to plant automatic Lincoln System.

No need for manual lubrication.

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