Karl Ahlborn Maschinenfabrik KG Vor dem Scheuerchen 17 D 37247 Großalmerode www.karl-ahlborn.de

Ahlborn ovenloaders overview

We are the manufacturer of different models of oven loaders. They can be distinguished in the grade of automation of the movements necessary when loading a deck oven.

In general there are 4 movements when loading a deck oven:

(1) Setter movement up and down
(2) Setter movement into hearth chamber and vice versa
(3) Setter belt back and forth
(4) Setter movement left and right in front of the oven(s)

Our oven loader programm is based on the stepwise automation of these movements, i. e. we manufacture the loaders with up to four gear drives, depending on the demanded loader automation grade.
We start with the Liftboy which is the base model.



Deck oven loader LIFTBOY

LIFTBOY

The Liftboy is a device which is completely manually driven: Inside a column there is a counterweight, which balances th load of the setter and parts of the load of loaves. There are adjustable rests which are adjusted at the heights of the hearths at installation time. It can simply be run by just one user: The loaves are dropped on the setter manually loaf by loaf or by using our mini- set setters (see photo) with a trolley. When all loaves are dropped on the setter the setter is pushed into the oven manually and the loaves are dropped onto the hearth baking plate.

The setter has an "unloading- nose", i. e. a thin roller at the oven side of the setter and it can also be used to unload the hearth: The baked loaves can therefore also be taken out by the setter.
The Liftboy can be moved horizontally in front of the oven from a left to a right

position. In case of a three- wide hearth there is an additional rest- position in the middle.

Please keep in mind that the Liftboy- setter has to be loaded with loaves before loading the deck: Here, we manufacture the light weight Mini Set setters to load the LIFTBOY setter effectively.

You can see our Liftboy working at www.youtube.de entering the keywords "Ahlborn Liftboy" The first step towards mechanized deckoven loading is the LIFTMATIC.

LIFTMATIC

The model is our LIFTMATIC which has the elevation movement automated by a gear drive. Here the movements are

- Setter movement up and down: **gear drive**
- Setter movenment into hearth chamber and vice versa: **manual**
- Setter belt back and forth: **manual**
- Loader movement left and right in front of the oven(s): **gear drive**



Deck oven loader LIFTMATIC with elevation drive and manually operated setter

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The LIFTMATIC is a portal (or: gantry design) with a table and a setter. Normally the setter is as wide as the hearth chamber. The setter and the belt are still operated manually. The setter can also be used to unload the hearth chamber as it has an "unloading tip". With baguettes and "normal" loaves it works just fine, but it does not apply to smaller loafs such as rolls.

You can see the LIFTMATIC working at www.youtube.com enteríng the keywords "Ahlborn Liftmatic"

Where the smaller LIFTMATIC has only the elevation movement of table and setter automated, the consecutive model LIFTMATIC S also has the setter movement into the hearth chamber driven by a gear drive.



Deck oven loader LIFTMATIC S with elevation drive and motor driven setter movement

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LIFTMATIC S

The next step in our range of oven loaders is the LIFTMATIC S which has (in addition to the elevation drive of the LIFTMATIC) the movement into the oven chamber driven by a gear drive aswell. Here the movements are:

- Setter movement up and down: **gear drive**
- Setter movenment into hearth chamber and vice versa: **gear drive**
- Setter belt back and forth: **manual**
- Setter movement left and right in front of the oven(s): **gear drive**

As above, the setter is as wide as the oven chamber and the belt is still operated manually, i. e. the trigger rod has to be moved back manually before loading the setter with loafs (and vice versa before unloading the oven chamber). As the LIFTBOY the LIFTMATIC setter also has the unloading nose described above- therefore the LIFTMATIC is capable of unloading loafs aswell.

You can see the LIFTMATIC S at www.youtube.com entering the keywords "Ahlborn Liftmatic".

All deck oven loaders described above have to be loaded with loafs by the operator standing on the left or right of the setter. Therefore, we recommend not to choose setter widths above 1,2 m. In cases when an oven with a hearth width of 1,8 m has to be loaded we recommend to use a loader table with a width of 0,9 m which can be moved from a left to a right loading position (see picture below).



LIFTMATIC S with a 0,9m wide setter in front of a 1,8m wide oven, shown in the left (un-) loading position

The disadvantage of loading the setter from the left or right can be avoided using an independent drive for the belt. In this case the setter belt behaves like a normal conveyour with a belt moving back an forth. Then the operator can load the belt standing opposite the oven at the end of the loader table. This leads to our LIFTMASTER oven loader.

LIFTMASTER

The upper automation grade is the LIFTMASTER. It has all movements motorized as follows:

- setter movement up and down: **gear drive**
- setter movenment into hearth chamber and vice versa: **gear drive**
- setter belt back and forth: **gear drive**
- setter movement left and right in front of the oven(s): **gear drive**



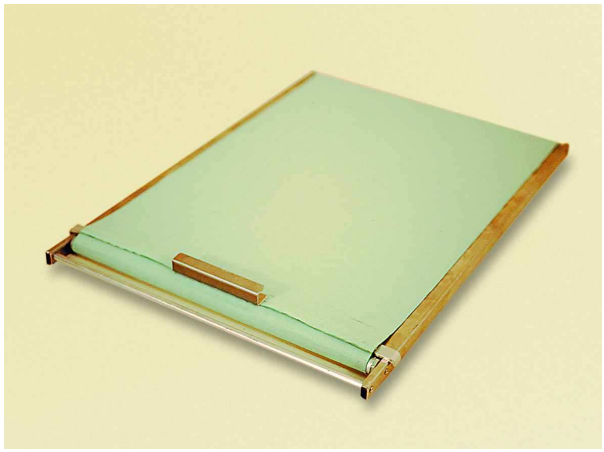
Deck oven loader LIFTMASTER with independent gear drive being loaded from an operator opposite the oven.

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In addition to the gear drives of a LIFTMATIC the LIFTMASTER has an independent gear drive for the loader belt. The belt can be moved back and forth simply by pressing a button. The independent belt drives gives the LIFTMASTER the advantage that the table can be loaded from the end opposite the oven. Please watch this detail on our youtube- video in the internet.

You can see the LIFTMASTER working at www.youtube.com entering "Ahlborn Liftmaster".

For proofing and loading the loader- setter, we manufacture so called Mini- Set setters and tilting devices for turning baguettes or rolls upside down before being baked. The latter is necessary in some applications when the baguettes are proofed upside down. In any case our equipment is customized to the demands of the customer.



Mini Set setter



Proofing trolley for Mini- Set setters



Tilting device for rolls and baguettes