LUBING Maschinenfabrik GmbH & Co. KG
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Information

Electrically adjustable guide unit

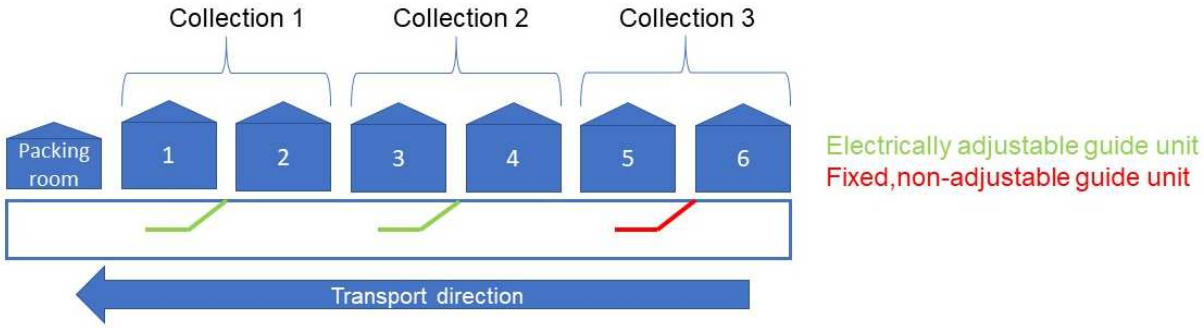
The electrically adjustable guide unit is used to optimize egg collection, especially in large conveyor systems with several houses. The product combines two important functions: collision protection and flexibility.

Collision protection: The electrically adjustable guide unit prevents collisions between eggs, just like a fixed, non-adjustable standard guide unit. The number of broken eggs on conveyors with lateral transfer can be reduced, as the egg flow arriving from behind is diverted to the side in front of the transfer sections through the use of the guide unit. The guide strip acts as a gentle diversion and collision protection.

Flexibility: The electrically adjustable guide unit also has the function of electrically moving and automatic adjustment of the angle of incline. The electrically adjustable guide unit can be moved to the side if necessary so that the conveying capacity of the system is not restricted. By moving the guide unit to the side, the full conveyor width/conveying capacity is maintained.

In large conveyor systems, several houses are often collected at the same time. Where fixed, non-adjustable guide units minimize and restrict the conveying capacity along the conveyor line by unnecessarily diverting the incoming egg flow, the electrically adjustable guide unit ensures full conveying capacity even at the end of the conveyor line.

Example:
A conveyor system consists of 6 houses. Two houses are collected at a time: house 1+2, house 3+4 and house 5+6.
Electrically adjustable guide units (green) are installed between houses 1+2 and between houses 3+4. Between house 5+6 a fixed, non-adjustable guide unit (red) is installed.



- *By using electrically adjustable guide units (green) between house 1+2 and house 3+4, it is possible to provide the full conveying capacity for houses 3 to 6, too. For this purpose, the corresponding adjustable guide units are electrically moved to the side during the collection of house 3+4 or 5+6. The full conveying capacity is available for each collection. The conveying capacity of the system is not restricted.*
- *If, instead of the two adjustable guide units, only fixed, non-adjustable guide units were installed along the conveying line, only a limited, minimized conveying capacity would be available for the collection of houses 3 to 6, since the incoming egg flow would be unnecessarily diverted by the fixed guide units at house 1+2 as well as house 3+4.*

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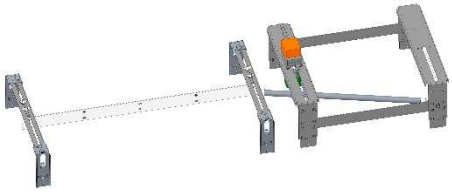
The electrically adjustable guide unit depends on the type of conveyor. Please refer to the following table for the corresponding item numbers:

	Type	Item No.	Description
	**350**	187 600 30 00	Electrically adjustable guide unit type 350
	500	185 600 30 00	Electrically adjustable guide unit type 500
	750	188 600 30 00	Electrically adjustable guide unit type 750

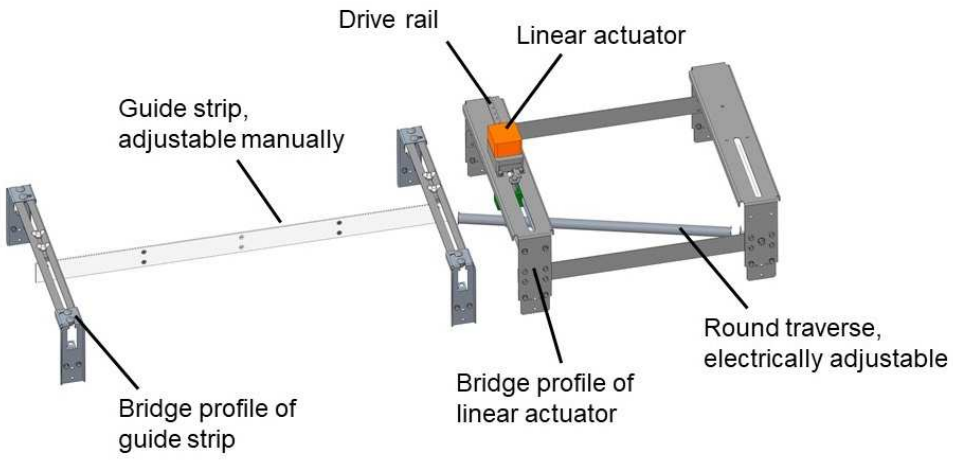
The electrically adjustable guide unit can be installed on conveyors in which one of the following conveyor chains is used. Please see table below for item numbers:

	Type				
	200	**250**	**350**	**500**	**750**
Standard conveyor chain	4961	4921	4861	4821	4891
Conveyor chain with rods up/down	4962	4922	4862	4822	4897
Epoxy coated conveyor chain	-	-	4857	4834	4887
Plastic coated conveyor chain	-	-	4859	4832	4892

NOTE

The electrically adjustable guide unit is **not suitable** for combination with the steep conveyor chain. For technical reasons, the guide unit does not get sufficient access to the eggs transported by the steep conveyor chain, as the eggs are too low in the chain.

Main components



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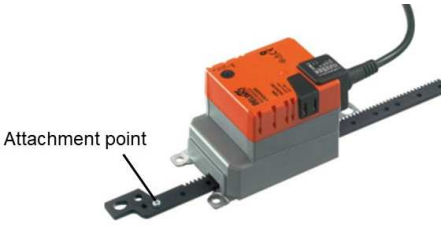
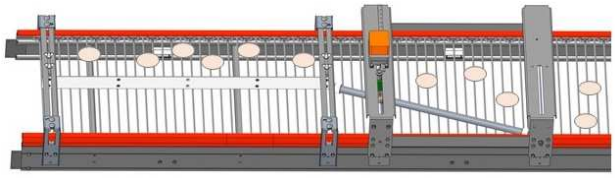
The adjustable guide unit has a linear actuator installed on the bridge profile of the guide unit. This linear motor is electrically controlled and allows automatic adjustment of the inclination angle of the round traverse. In this way, the discharge width is adjusted and the round traverse can be moved to the side if required.

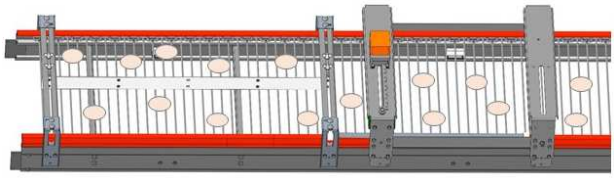
Important information!
Ex works, the linear actuator is configured via attachment points so that it covers **½ of the conveying range** at maximum control. The attachment points can be changed as required by means of two little screws on the drive rail.



Under electrical control, only the round traverse moves. The guide strip remains in its fixed position. If the round traverse was moved to the side, the eggs flow passes the guide strip on the right and left (see fig. right). The position of the guide strip can be changed by means of the wing screws on the bridge profile as required.



Electrically adjustable guide unit, maximum control



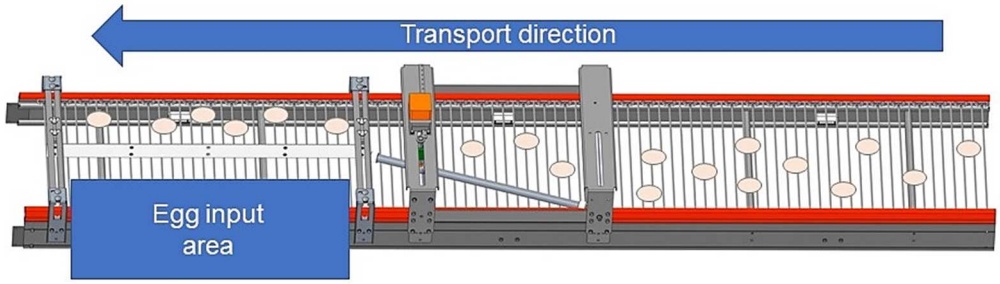
Electrically adjustable guide unit, moved to side

Installation

The electrically adjustable guide unit is delivered partly assembled. The final assembly takes place on site and can be carried out on closed and open connecting parts.

The guide unit is placed on the connecting part in such a way that the egg transfer area is sideways between the bridge profiles of the guide strip. The egg transfer must not be located within the area of the round traverse.

The following illustration shows the correct positioning of the electrically adjustable guide unit:



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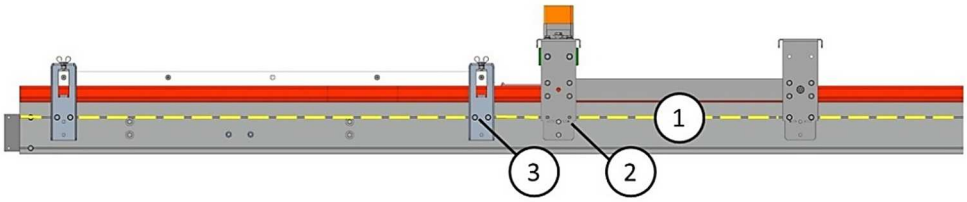
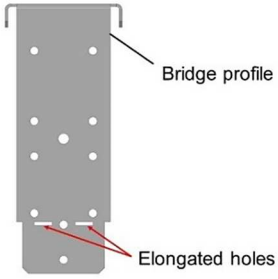
For installation, the bridge profile is mounted above the connecting part. For installation, place the guide unit on the connecting part from above. The upper groove (= marking groove) (1) in the aluminum side profile serves as a guide for the height.



Exemplary screwing of the guide unit on a connecting part closed

Screw the bridge profiles on both sides. Depending on the positioning, you can use the existing screw material of the traverses (2) or the M6x16 hexagonal bolts with washers and nuts (3) included in the scope of delivery.

Important information!



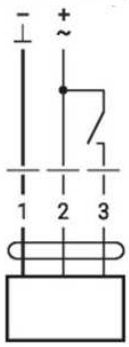
Screwing to connecting part open:
When screwing to connecting part open, it may be necessary to shorten the side of the bridge profile to allow the dirt collection plates to be pulled out. Two elongated holes in the profile show the cut edges. Cut off the lower part of the profile at this point.

Electrical installation

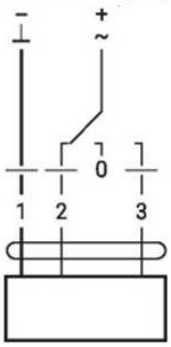
The electrical installation of the adjustable guide unit must be carried out by a qualified electrician on site. The linear actuator must be connected to the control box/control panel of the conveyor system. See below for connection diagram. The linear motor is designed for 24V AC/DC. It is UL/CSA certified.

Wiring diagram

AC/DC 24V, open/close



AC/DC 24V, 3-point



Wire colours:
1 = black
2 = red
3 = white