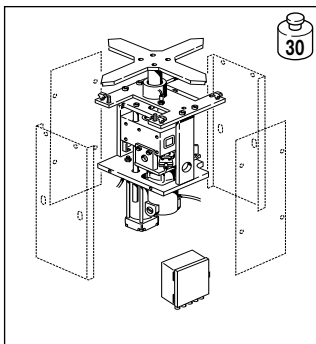


Lift-Rotate Unit

## Section 14 – Lift-Rotate Unit

HD2 Units (Lift-Rotate Units) are used to turn the orientation of the workpiece pallet 90° or 180°. The lift plate fits into the corners of the workpiece pallets frame and lifts the pallet 68 mm above the transport height.

The lift-rotate unit is designed for pallet orientation only and process equipment should not exert any external force on this module.



**HD2/E**  
Lift-rotate unit  
14-2 to 14-3

Lift-Rotate Unit

# Lift-Rotate Unit



Model HD2/E

The Lift-Rotate unit changes the orientation of the workpiece pallet. In some systems this may be done to ensure that the workpiece pallet's leading edge remains the same regardless of workpiece pallet transfers. In other instances, workpiece orientation may be changed to simplify assembly or handling processes.

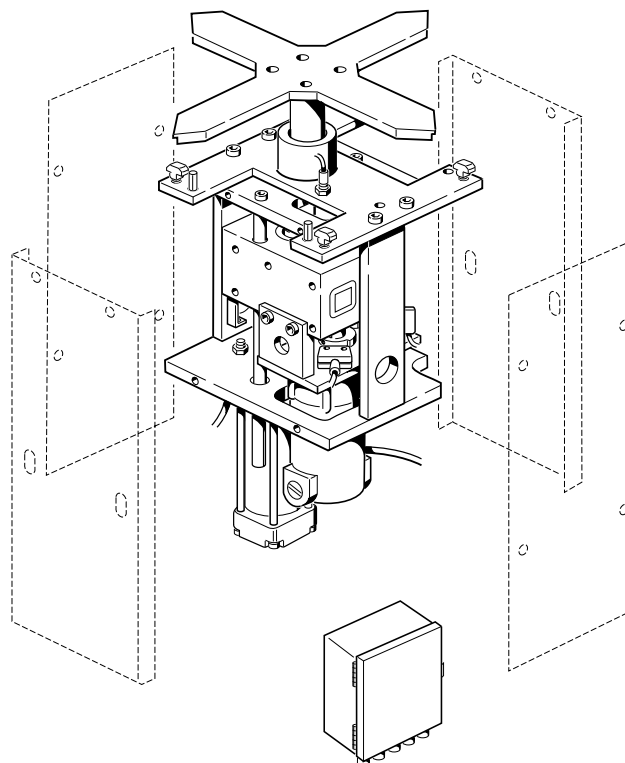
The Lift-Rotate unit is mounted to the underside T-slots of a conveyor section. The included controller enclosure, containing the motor drive package and terminal strip for all wiring connections, is mounted to the side T-slots of the conveyor section near the lift-rotate unit.

The lift plate on the lift-rotate unit contacts the workpiece pallet support plate and fits into the corners of the workpiece pallet's frame. Lift is provided by a pneumatic cylinder, with a payload of up to 30 kilograms. The lift-rotate unit lifts the workpiece pallet 68 mm above the belt height. Lift and lower speed can be set with adjustable pneumatic flow control valves. An electronic speed control permits adjustment of the Rotation speed. The controller contains logic to complete one 90° rotate cycle for each start pulse received from the system controller.

The unit is set up for clockwise rotation at delivery. Rotation can be reversed at installation, however the unit is not bi-directional.

The lift-rotate unit is designed for pallet orientation only. Processing equipment should not exert external forces on this module.

A *rotate home* limit switch, three 12 mm proximity switches, pneumatic fittings, and all mounting hardware are included.



### Ordering Information for Lift-Rotate Unit HD2/E

Specify part number, then select from the options below.	Your Choices are:	Part Number <b>8981 999 250</b>
		Your selection:
Conveyor section profile	80 mm high 100 mm high	_____ mm
Pallet Width $B_{WT}$	160, 240, 320, 400, 480	_____ mm
Pallet Length $L_{WT}$	160, 240, 320, 400, 480	_____ mm
Controller	None 110 v/ 60 Hz 230 v/ 50 Hz	_____

**Note:** Bosch Rexroth recommends guarding at Lift-Rotate Modules as the pallet will swing beyond the edge of the conveyor during rotation.

Lift-Rotate Unit

Technical data for HD2/E

Air	= Oiled and filtered
Operating pressure	= 4-8 bar (58 to 116 psi)
Operating voltage	= 110 V, single phase
Direction of rotation	= clockwise as delivered
Rotation angle	= 90° increments, infinite
Cycle time	= Approx. 3 secs. (load-dependent)
Lift above belt	= 68 mm
Max. weight capacity	= 30 kilograms (66 lbs.)
Air connections	= 8 mm (5/16") dia. push-lock type plastic tubing
Host I/O requirements	= (1) output for Rotate Start = (1) output for Pallet Lift = (1) output for Pallet Lower = (1) input for Lift Raised = (1) input for Lift Lowered = (1) input for Rotate Complete = (1) input for Rotate Home
Air fitting	= 8 mm

Dimensional data for HD2/E

