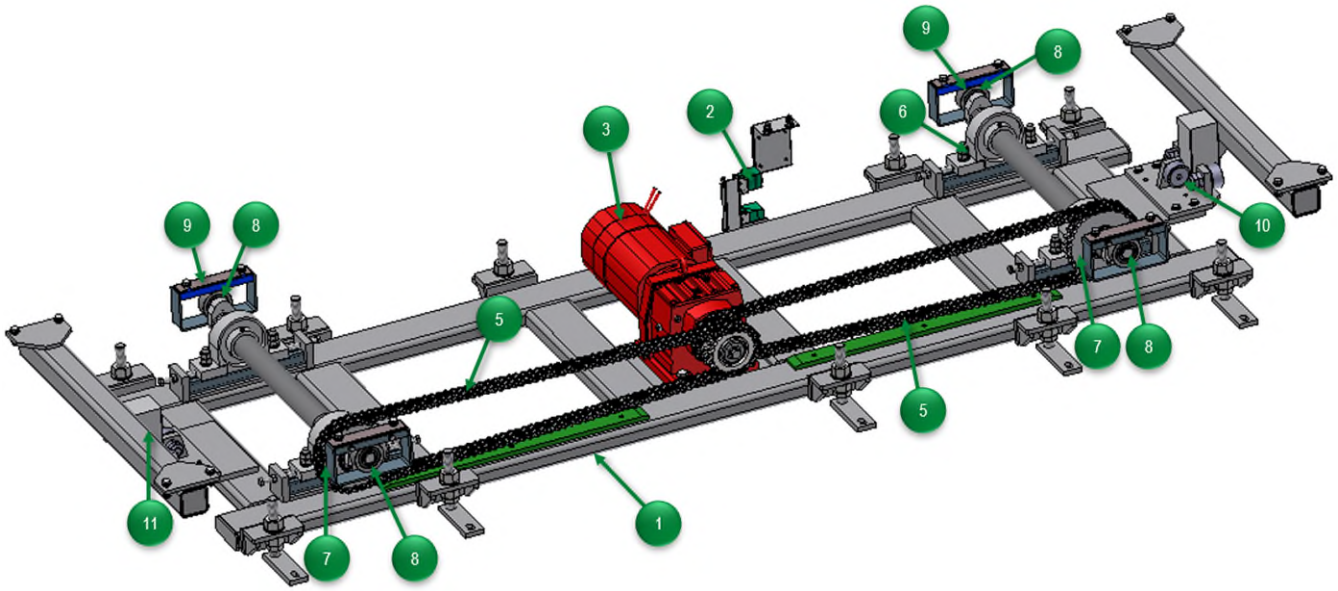
Lift Table Wet Application



1	Frame	5	Lifting Chains	9	Runner Rails
2	Proximity Switch and Actuator	6	Pillow Block Bearings	10	Guide Rollers
3	Gearmotor	7	Lift Sprockets	11	Track Rail
4	Drive Sprocket	8	Cam Roller		

Lift Table Wet Application Overview

The module consists of an eccentric lift table with a power roller bed mounted on it. The eccentric lift table is available with 2-stop and 80 or 175mm stroke or 3-stop with 80mm stroke. A special feature is the hold table. Instead of a power roller bed, the hold table just has a skid support plates to accept skid runners on the eccentric lift table.

The eccentric lifting table consists of the assembly frame, drive motor with double toothed belt pulleys, eccentric shafts supported by bearings and with toothed belt pulleys and cam rollers as well as toothed belt and vertical guide.

The frame consists of box section and angle steel and is fixed to the floor by adjustable feet. It holds the pillow block bearings for the shafts and the roller brackets of the vertical support and the drive motor.

The eccentric shafts are supported by pillow block bearings and are equipped with toothed belt pulleys, eccentrics and cam rollers. The cam rollers move within eccentric rails mounted to the attached power roller bed.

At drive side cam rollers are eccentrically screwed with drive pulleys. At the reverse side rollers are screwed with eccentric. The twofold distance between cam roller and the center of drive shaft is the height of stroke of the table. There are lift tables that provide a stroke of 80 mm or 175 mm.

The vertical support provides the vertical guidance of the roller bed to be lifted. Three track runner bearings are mounted to a plate with an angle of 90° and 180° respectively and each are bolted to the frame of the lifting table. Between the rollers a solid bar moves, which is welded with the cross beam, that is attached to the roller bed. The cam rollers are inserted into a slotted hole. By using the adjusting screw the clearance in the vertical guidance can be adjusted.

The drive of the two eccentric shafts is driven by two toothed belts which are both driven by the toothed belt double pulley of the motor. The toothed belt double pulley is fixed to the motor shaft by a clamping set.

The installed height of the eccentric lift table can be adjusted in the range +/- 25mm. For this purpose, there are adjustable feet screwed to the frame; they must be secured to the floor by the integrator. The appropriate lift heights are controlled by initiators.

For the cross transfer conveyor (S006-2 and S006-3) there is a special eccentric lift table available with 80mm stroke and 3 stops available. This eccentric lift table has an additional stop at approx. 40mm stroke and a hard stop.

Normally the 2-position eccentric lift table or hold table is mounted between the two belts or chains of the cross transfer conveyor. The lift table descends to its lowest position to accept the transported goods, so that the cross transfer conveyor can place the skid above the power roller bed on the lift table.

Where the cross transfer conveyor runs continuously, the transported goods are accepted, and also delivered, on-the-fly by the moving conveyor with the ELT in a mid-position. This requires a special skid stop, which is provided with a 3-position eccentric lift table.

In the tooling area of the internal conveyor installation, there is a special form of eccentric lift table with a longer stroke (175mm) and a faster descend. The elevation of this eccentric lift table is 740mm instead of 500mm at the 80mm stroke tables. There is a power roller bed mounted on it which is as long as a complete skid. This module is used to achieve a fast cycle time, e.g. for welding lines. In this case, the power roller bed is lowered to a working position and raised again to transport the skid onwards.