solids Filling Chute
Type TLC

For dust-free loading of bulk solids from silos or processes into trucks or wagons. Version with conical inner cups, optionally dustproof docking system.

Advantages:
• Fail-safe due to the electro-pneumatic installation, level sensor, limit switches and complete control unit
• Optionally dustproof due to pneumatically sealed filling neck; no environmental pollution; no cleaning costs
• Less suction air volume, and therefore a smaller air filter and blower
• Reduced investment costs owing to savings in the filter when feeding the displaced air back to the silo
• Less operating costs owing to high loading capacity and short holding times of vehicles
• Can be used globally; suitable for many bulk solids
Characteristics:
1. Optionally dustproof pneumatic seal of the loading neck due to inflatable blowing hose
2. Connection for suction or deaeration pipeline to the silo; optional with a filter and a blower
3. Seal cone: closes the outlet opening to prevent the product from trickling down when lifting the loading head
4. Limit switch for the “Top” and “Bottom” positions
5. Geared motor for lifting and lowering
Function:
The TLC type loading chutes with the electrical winch version are intended for dust-free loading of silo trucks from silos and bunkers, wherein the filling openings of a silo truck are placed exactly below the loading chute.

The loading telescope moved to the idle position is then released using the electrical winch until the rest is positioned on the loading opening. At the same time, the conical seal moves to the end of the loading telescope so that the filling process can start. When the electrical contact is established, a level sensor installed below the conical seal indicates that the corresponding tank section of a silo truck is filled. This prevents the filling neck from overflowing and dust from coming out.

The product volume per time unit must be set using controllable metering equipment. A so-called “slack rope switch” switches off the electrical winch motor when the loading chute is positioned on the filling opening or when the loading chute is completely extended. Another limit switch is activated at the top dead point (loading telescope completely retracted) and the winch motor switches off.

Main assemblies:
The TLC type loading chute comprises the following elements:
• Upper connection neck with a flange and lateral deaeration neck for the connection of the loading head to an on-site aspiration system.
• Loading telescope, comprising partially interlocking open cups; each of them are supported at three points by a web belt. The number of cups depends on the order-based length of the loading chute.
• Lower loading head, comprising a conical neck that rests on the filling opening, an integrated conical seal for product cut-off; with a blowing hose for dustproof sealing of the truck opening.
• Circular manual guiding ring on the circumference of the loading head; for accurate guiding to the filling opening of the silo truck.
• One steel traction rope for the electrical winch.
• Electrical rope winch with a worm gear flanged on a cantilever in the inlet area; self-locking geared motor so that the loading chute stops in its current position if the motor is switched off; with an electrical motor.
• Limit switches, one for switching off the motor at the top dead point and the other as a slack rope switch.
solids Filling Chute
Type TLC

Version for open loading:

Inlet flange
DN300 PN6

Deaeration neck
DN 150  PN10
DIN2576

Inner cups
Outer bellows
3 ropes outside,
120°

3 supports 120°