



Silo Technology



LINEX
Silo discharge unit

**LINEX:
SAFE SILO DISCHARGE FOR
POOR FLOWING BULK
MATERIALS**

Bulk materials with extreme poor flow characteristics can form bridges several meters wide. To achieve mass

flow, silos with steep cone angles and large discharge openings are required. However, building silos with steep cone angles and large discharge openings are for technical and economical reasons not feasible. This prompted the development of the

LINEX silo discharge unit which activates and withdraws bulk material from across the entire silo area.

Function:

The discharge area required to ensure that no bridges or funnels are formed is equal to the inlet area of the LINEX silo discharge unit. An oval slide frame (Figure 1) oscillates above a horizontal reclaim platform which can possess one or several discharge slots. In the case of rectangular shaped silos, rectangular slide frames are used (Figure 2). The frame is

wedge shaped. The high side of the wedge is always positioned toward the discharge slot. With each transitory movement of the slide frame, material is moved toward the discharge slot by the high side of the wedge.

At the same time, the bulk material is being undercut by the tapered side of the wedges. The slide frame is equipped with a hydraulic drive. Blockage caused by foreign materials and / or areas of compacted bulk goods, will be detected by limit switches or by high hydraulic pressure. When this occurs the hydraulic



Figure 1



drive will reverse automatically and continue safe discharge of the bulk materials. Each discharge slot is equipped with a discharge screw conveyor.

The discharge screw conveyor allows discharge of the material at either the center or at the end of the silo.

Typical bulk materials and fields of use

Industry	Bulk material
Water treatment and sanitation plants	Sewage sludge, industrial sludge, filter cakes
Wood and fibrous material industry	Tree bark, wood chips
Recycling plants	Paste and granular waste
Power and incineration plants	Sewage sludge
Drying plants	Paste

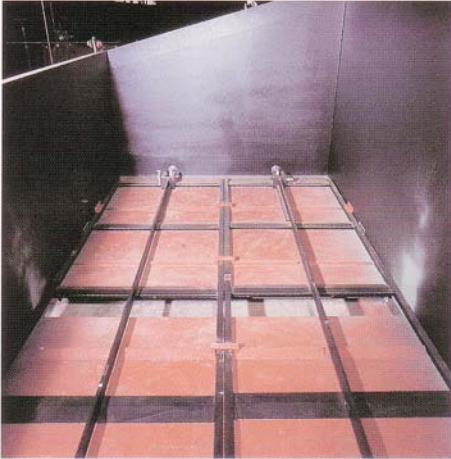


Figure 2

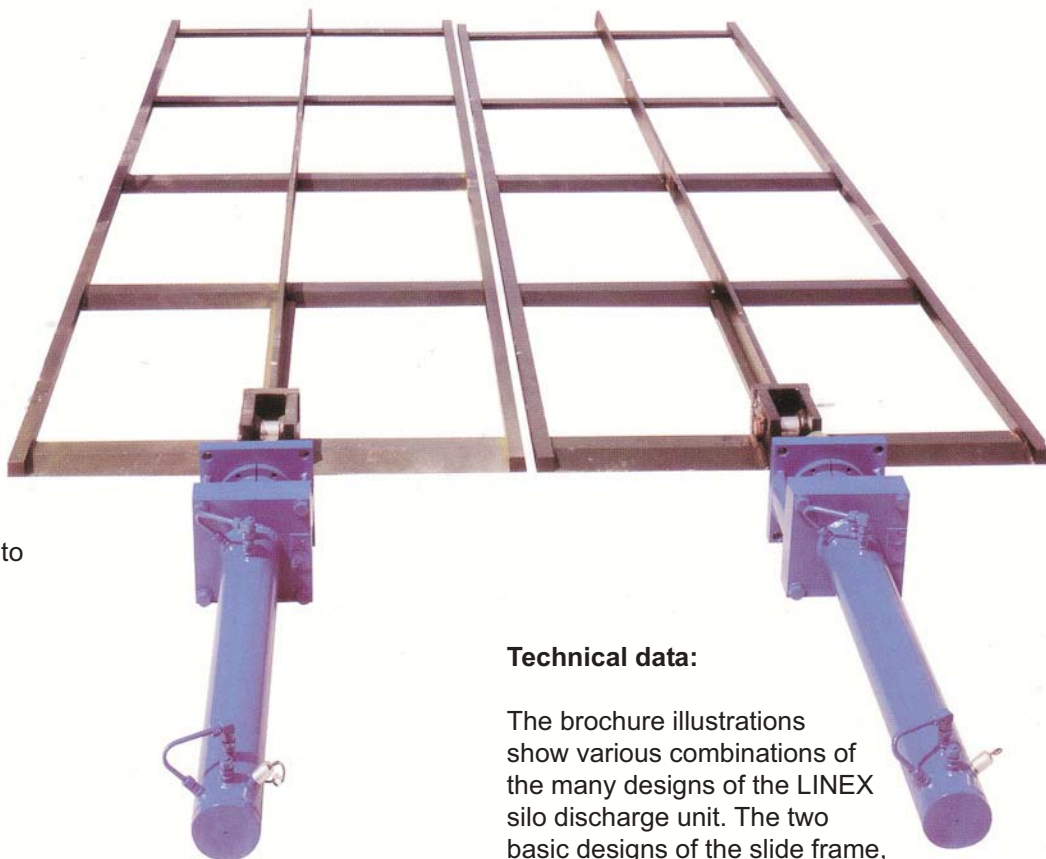




Figure 3

Convincing advantages:

- Full activation of the whole silo area
- Low space requirement due to direct installation on the silo wall
- Simple maintenance due to external mounting of drive and sealing elements
- Reduction of silo height
- Simple modification on existing silos
- Automatic reversal of hydraulic drive limiting material compaction
- Safe operation even after long periods of shutdown



Technical data:

The brochure illustrations show various combinations of the many designs of the LINEX silo discharge unit. The two basic designs of the slide frame, oval and rectangular, can be equipped with one or several hydraulic cylinders. Through the use of one or several discharge screw conveyors, the discharge can be located centrally, on one side of the silo, or on both sides of the silo. ALTMAYER provides expertise and advice concerning the installation and selection of the LINEX silo discharge unit in accordance with each customer's individual requirements.

Materials:

- Standard steel
- Standard coated steel
- Stainless steel
- Wear resistant steel



Figure 4



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