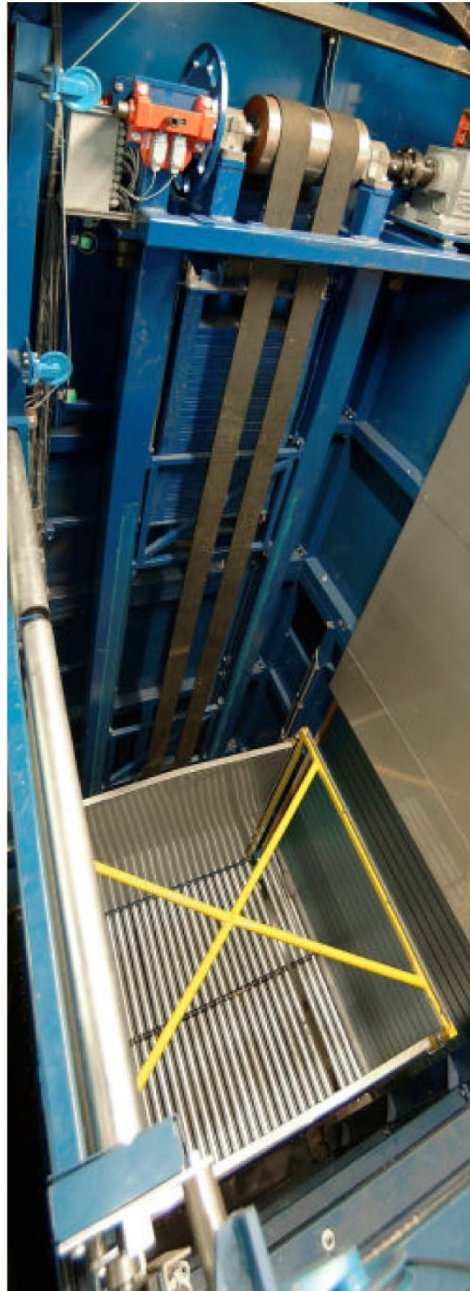


NERAK HEAVY-DUTY RECIPROCATING CONVEYORS

SERIES UP TO 1500 KG PAYLOAD



NERAK
SYSTEMS

THE EXPERTS IN VERTICAL CONVEYING

DESIGN

The conveyor stand comprises two square tubes, the stand base and various brackets, arms and flanges that have been welded on. The head plates welded on the tops of the tubes support the frame of the drive unit. The base of the stand is concreted and secured to the floor with anchor bolts. For greater stability, the conveyor must also be secured to suitable walls or the ceiling.

The lifting carriage is a welded steel frame with guide rollers, lifting brackets, the lifting belt attachment and the horizontal conveyor.

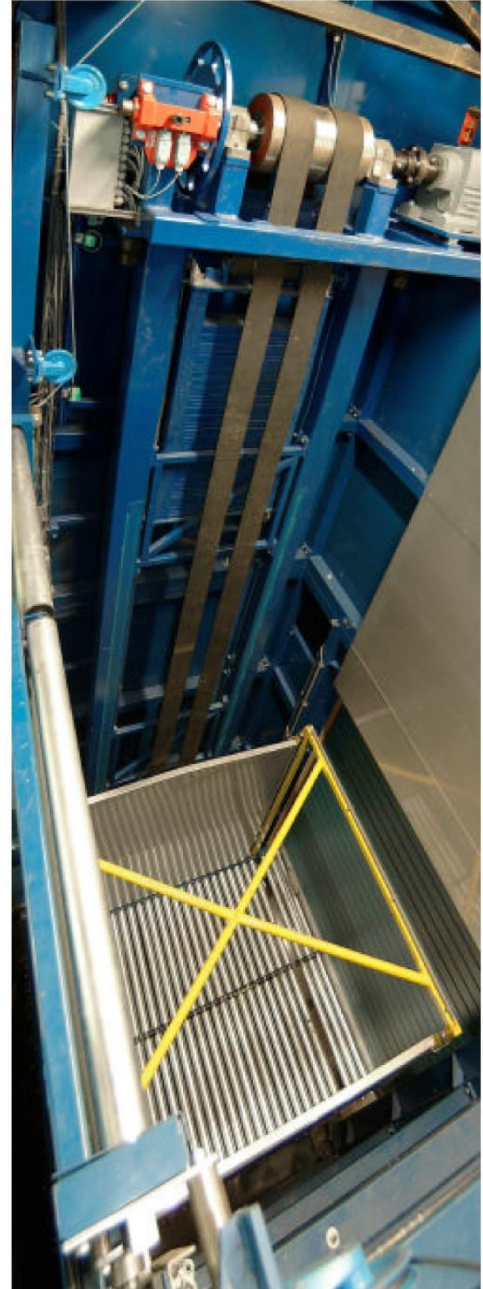
The drive unit comprises a spur geared motor, coupling, shaft bearings and drum. Two flat belts transmit the driving torque, causing the lifting carriage and counterweight to move up and down. The load is evenly distributed between the two belts by means of a see-saw lever. Each belt has been dimensioned to bear the whole load on its own if the other belt should break. In this event, a limit switch signals a malfunction.

The safety lock for maintenance and repair work mechanically locks the conveyor to ensure that it is impossible for the lifting carriage to move even if electrically actuated. This mechanical lock consists of bolts that are manually slotted into a perforated disc on the main driving shaft. This bolt is then electrically secured.

The proximity switches provided are adjustably mounted on C-shaped profiles.

Wiring to the terminal strip is available as an option.

The electrical components on the lifting carriage are supplied with power by means of a flexible cable.



PRINCIPLE



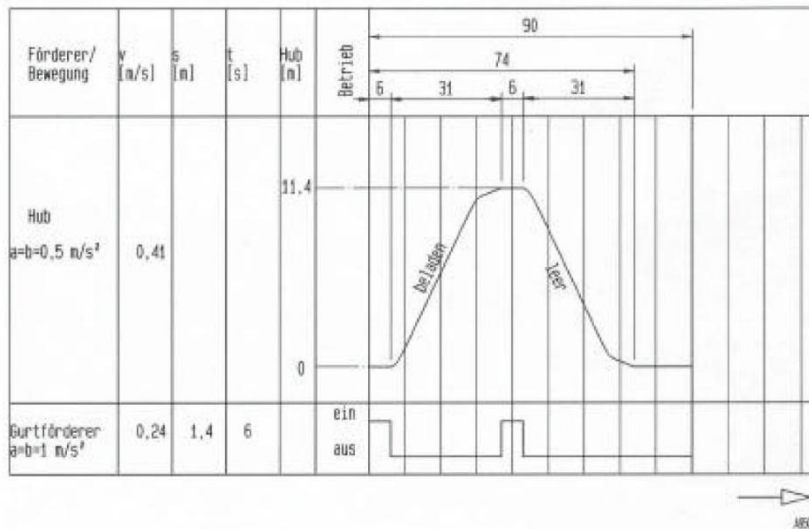
NERAK is the expert in vertical conveying where packaged goods are concerned. Whether you need to transport tinned foods, parcels, sacks, barrels or loaded Euro pallets, you can rely on NERAK to provide a high-quality and cost-efficient solution.

For heavy loads of up to 1.5 t NERAK can offer the heavy-duty S-shaped conveyor where large quantities have to be handled, and the heavy-duty reciprocating conveyor KH15 that is more suitable for lower throughputs and where several levels have to be served.

A lifting carriage suspended on two parallel steel reinforced belts is moved up and down guide sections via rollers of polyurethane or steel, stopping at any number of stations required. Lifting is performed by a geared brake motor that may be pole-changing or frequency-controlled depending on the application. The hoist system operates with a counterweight in the lifting frame. This reduces the driving power required. The lifting carriage can be fitted with any type of horizontal conveyor such as a roller conveyor or chain conveyor.

When performing maintenance work, the conveyor can be mechanically chocked.

Functional diagram (example)



Control	Lift frequency converter.	Belt conveyor frequency converter	Throughput: 40 lifting cycles/hour
Ramp delay acceleration [sec] :	0.84	0.24	Figures are only examples
Ramp delay deceleration [sec] :	0.64	0.24	
Acceleration path [mm] :	1.76	30	
Deceleration path [mm] :	100	30	
Positioning speed [m/s] :	0.1		
Positioning time [sec] :	1		
Positioning path [mm]	300		

TECHNICAL DETAILS

Drive unit with geared motor, coupling, drum and interlock



Lifting columns with flat belts and counterweight

Exact dimensions depend on material, capacity and lifting height, and are obtainable on request.

Other brochures available for NERAK products:

- S-shaped conveyors
- Heavy-duty S-shaped conveyors
- Circulating conveyors
- Vertical lift units
- Circulating fork conveyors
- Heavy-duty reciprocating conveyors

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