

Chain Conveyors



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Chain Conveyors type LOUISE TKF

For conveying, distributing, and reclaiming powdery, coarse, fine grained, abrasive and moist bulk materials such as:

- Natural and FGD Gypsum
- Blast furnace slag
- Limestone
- Burnt lime
- Clinker
- Raw meal
- Cement
- Filter dust
- Coal
- Ash
- Fertilizers
- Soda ash
- Alternative Fuels
- and others

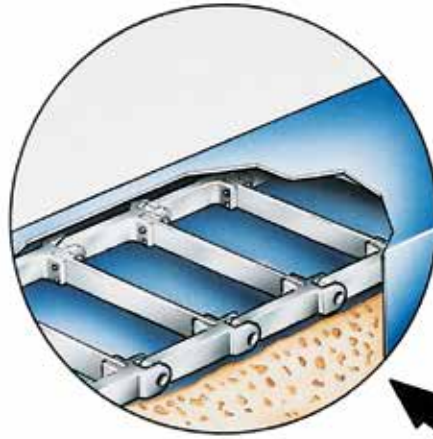
Designed to suit the properties of the bulk material, the operating hour and the conditions of the surroundings, with the appropriate chain speed and chain width being of vital importance for the service life of the conveyor.

Outstanding benefits:

- Dust tight design
- No spillage
- Centre distance to 50 m
- Design with single or double-strand chain
- Available in shock pressure proof design
- Low maintenance
- Long service life

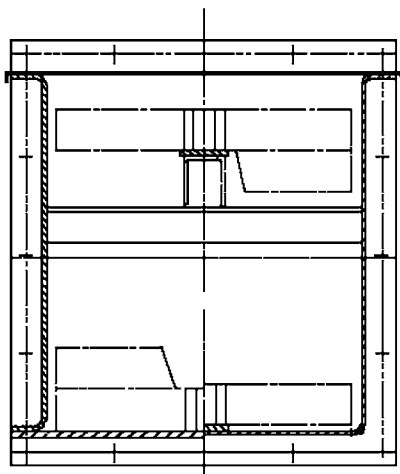
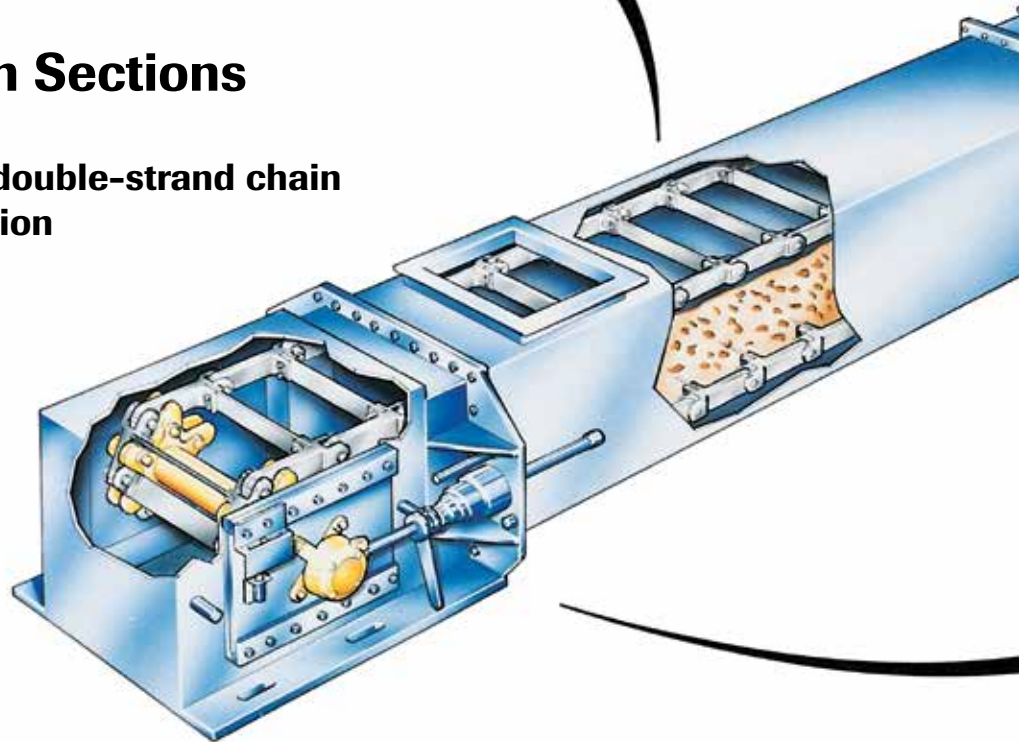


Filter dust reclaim

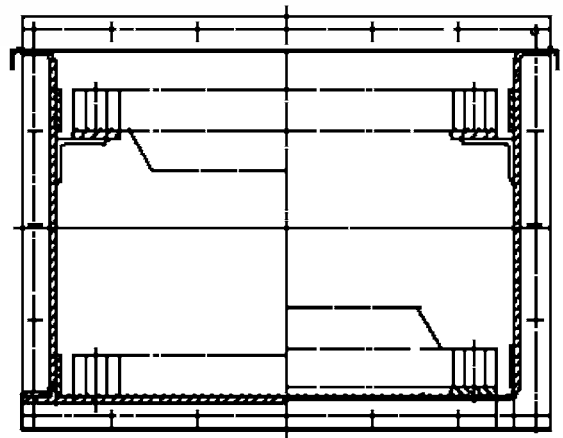


Selection of Trough Sections

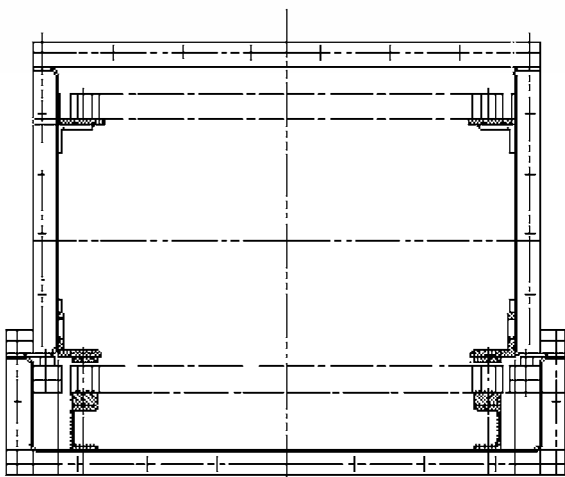
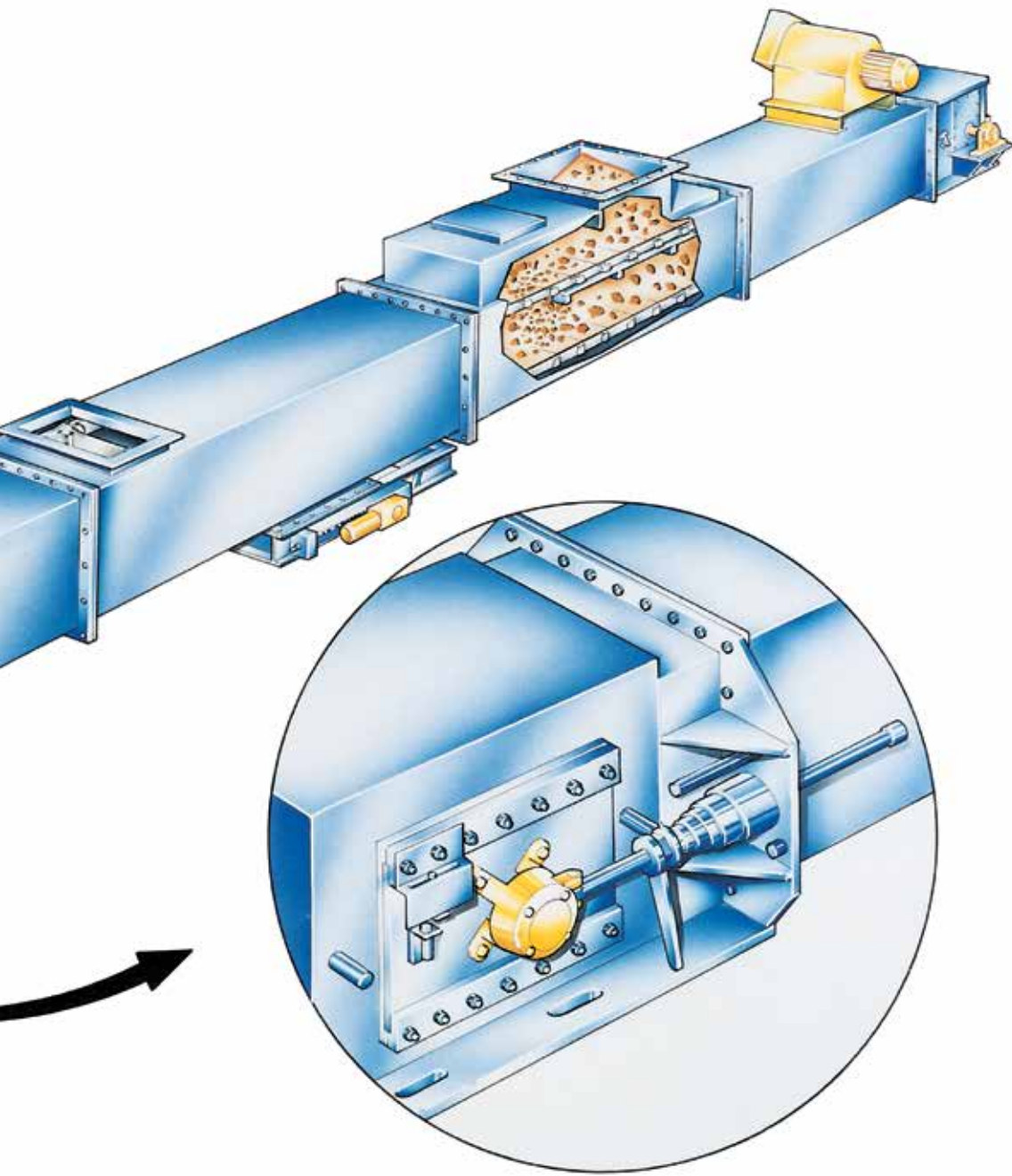
Available with single and double-strand chain depending on the application



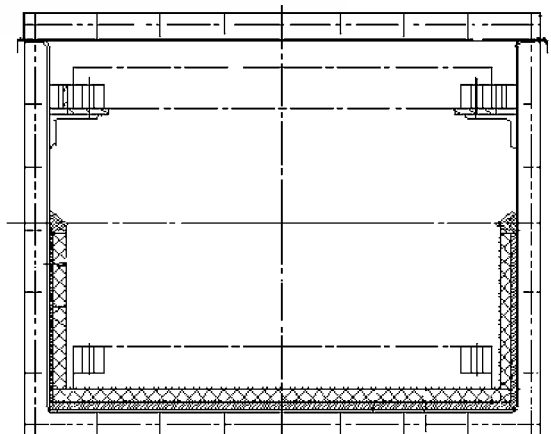
Single-strand chain with standard/oversized flights



Double-strand chain with wear plates



Section with material bed for clinker transport

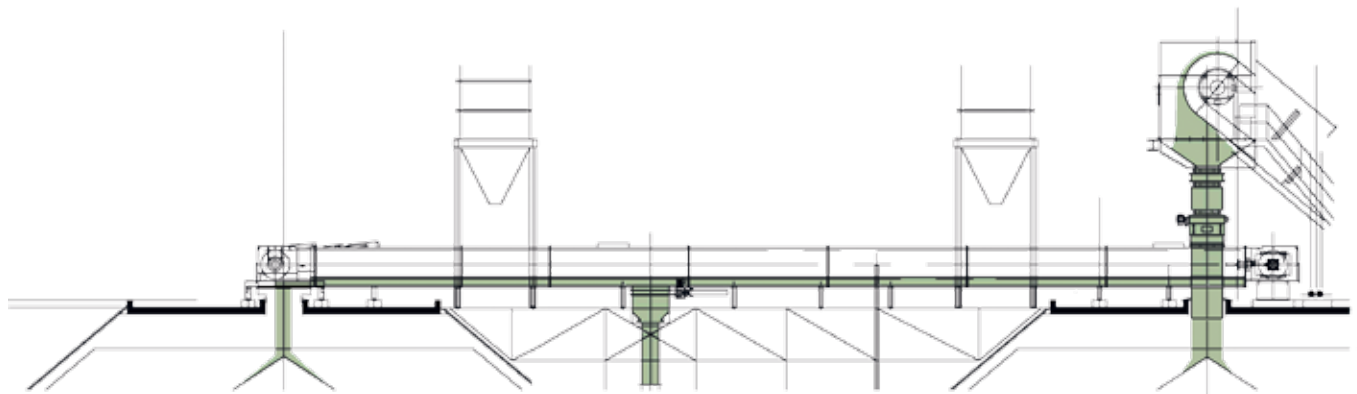


Section with cast basalt lining

Applications



Distributing bulk materials into a battery of silos



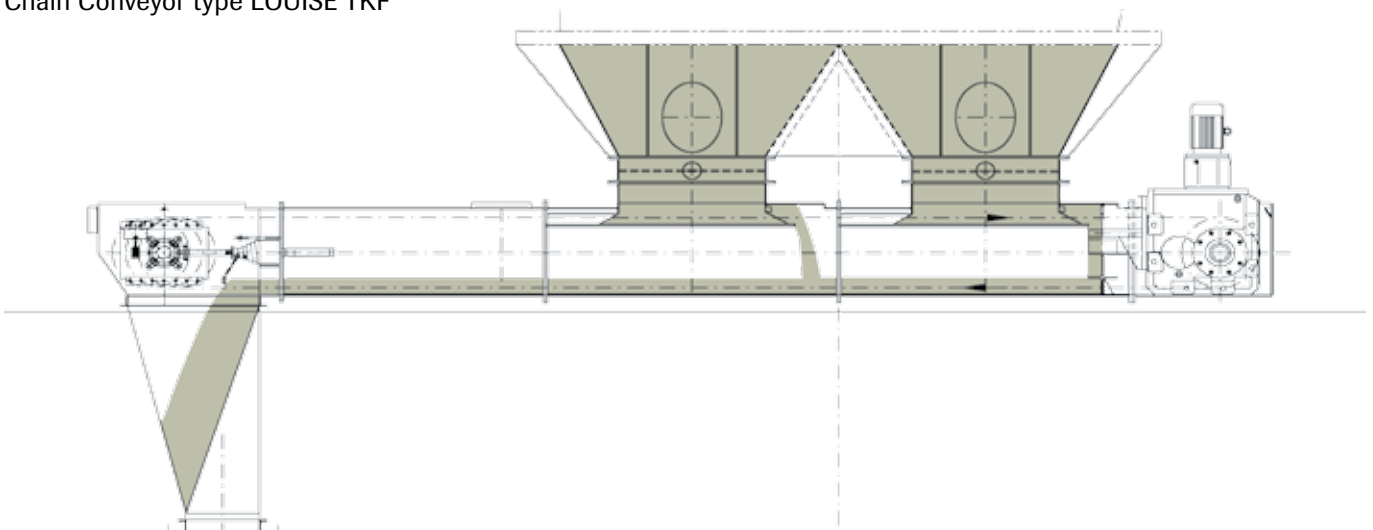
Distribution of various types of bulk materials

Chain Conveyors to convey and distribute bulk materials to different locations. Controlled feeding of the Chain Conveyor is realized through one single feeding chute.

The number of discharge openings varies in accordance with the plant requirements. All intermediate discharge openings are fitted with remote controlled shut-off gates allowing to choose the receiving silo from the central control room. The final discharge opening in the drive station remains open at any time.



Chain Conveyor type LOUISE TKF

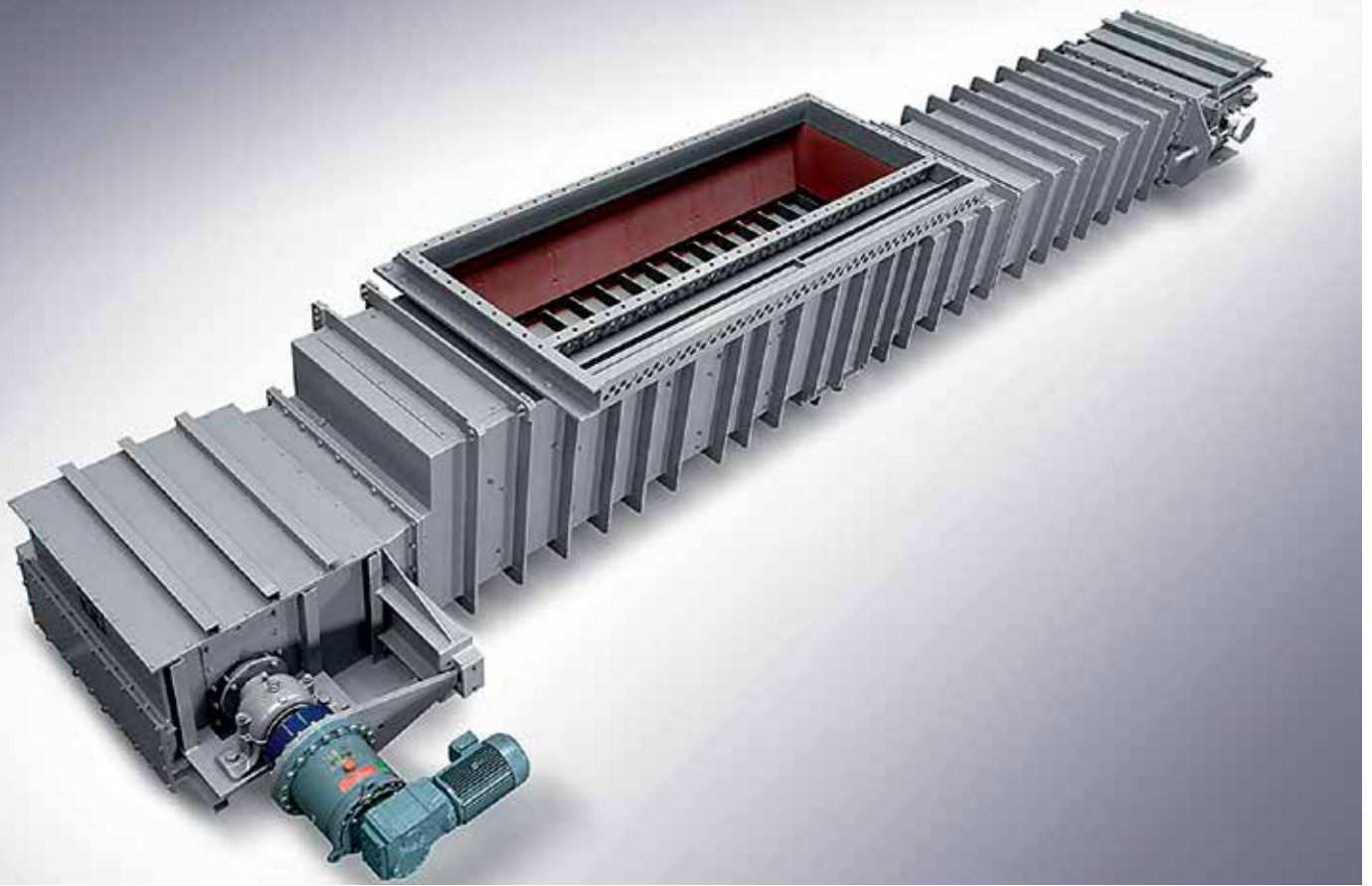


Reclaim of bulk material from various silos or hoppers

A double row needle gate or a motorized slide gate, open in normal operation, isolates the silo or hopper from the Chain Conveyor for maintenance purposes. During the discharge process the full load of the bulk material is supported by a discharge table located underneath the reclaim opening on the return run.

This arrangement enables the volumetric discharge at the required rate by regulating the height of the material layer either with the chain speed through the frequency converter or with a motorized or manual level control. Discharge onto subsequent equipment is realized through the discharge opening in the tension station.

Coal Mill Feeding



Chain Conveyor with double-strand chain

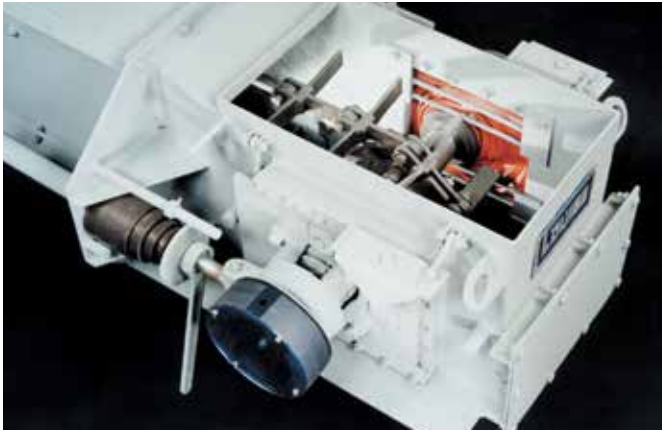
For coal mill feeding applications, all Chain Conveyors come in a shock-pressure proof design resisting to 3.5 bar on a standard basis.

These Chain Conveyors feature a double-strand chain. A variable speed drive with frequency converter ensures a uniform material flow and controlled feeding.

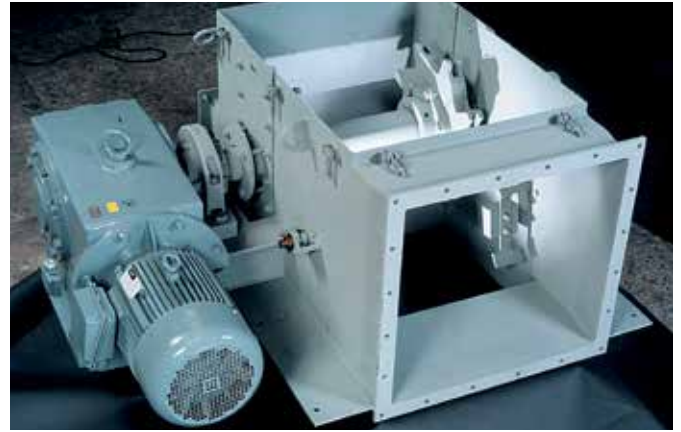


A double-strand Chain Conveyor loads FGD Gypsum from the flue-gas desulphurisation into the storage silo

Components & Details



Tension Station



Drive Station



Tension Station



Drive Station



Single-strand chain



Double-strand chain



Drive sprocket



Take-up sprocket

Waste Incineration Plants



Hot boiler ash from a row of boilers

Proportional feeding of the Chain Conveyor handling the boiler ash allows for homogeneous distribution of the 200 - 550 °C ash in the conveyor trough.

The dust taken from the precipitator has a temperature of approx. 300 °C.

Both Chain Conveyors are equipped with a single-strand chain.

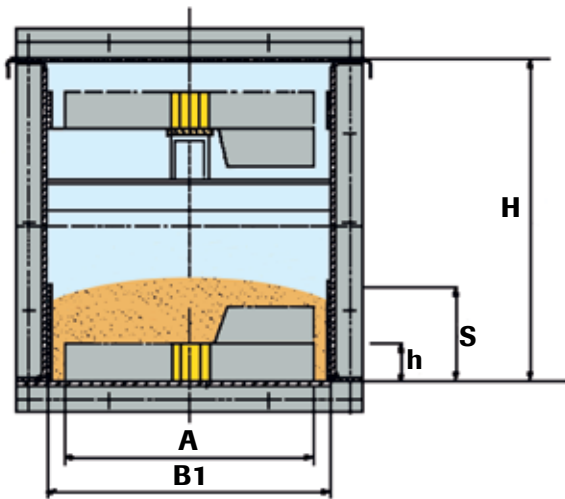
Bottom ash and filter dust are unloaded into intermediate storage silos.



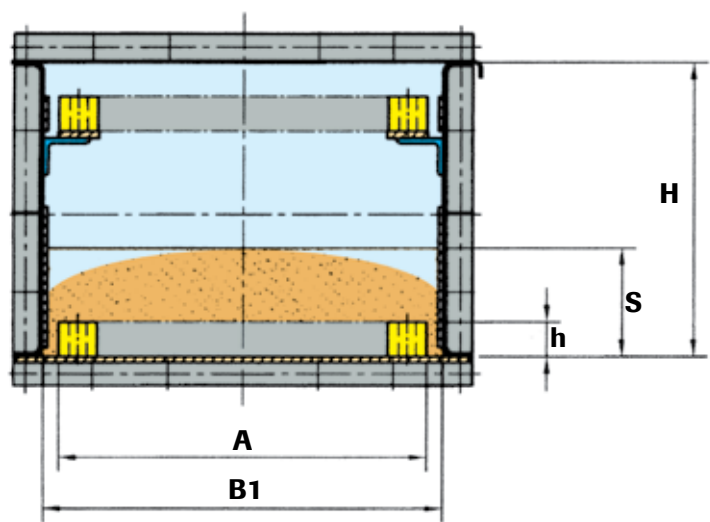
Limestone handling



View into Chain Conveyor



Single-strand chain



Double-strand chain

Conveying Capacity

The properties of the bulk material are essential to determine the main features of the Chain Conveyor's components such as chain type or flight height. They

also determine the material layer and the actual conveying capacity. The following capacities are based on standard conditions.

Conveying capacity with standard conditions*

Width A	Trough		Material level S	Flight Height h	Theoretical capacity m ³ /h					
	Width B1	Height H*			Conveying speed m/s					
mm	mm	mm	mm	mm	0.05	0.10	0.15	0.20	0.25	0.30
250/1	306	515	100	50	5.5	11.0	16.5	22.0	27.5	33.0
400/1	456	515	150	50	12.5	25.0	37.5	50.0	62.5	75.0
		645		50						
630/1	686	515	170	50	20.0	40.0	60.0	80.0	100.0	120.0
630/2		645		50						
800/2	856	515	200	50	29.5	59.0	88.5	118.0	147.5	
		645	230	60	34.5	69.0	103.0	138.0	172.5	
1,000/2	1,056	645	230	60	49.5	99.0	148.5	198.0	247.5	
		775	280	60	51.5	103.0	154.5	206.0	257.5	
1,200/2	1,256	645	230	60	50.5	101.0	151.5	202.0	310.0	
		775	280	60	62.0	124.0	186.0	248.0		
1,400/2	1,456	645	230	60	59.0	118.0	177.0	236.0		
		775	280	60	71.5	143.0	214.5	286.0		
1,600/2	1,656	775	280	80	81.5	163.0	244.5	326.0		
1,800/2	1,856	775	280	80	91.5	183.0	274.5			
2,000/2	2,056	775	280	80	102.0	204.0	306.0			

*The trough height depends on the chain size and the number of sprocket teeth.

*Subject to change without notice



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