



**BEUMER**  
technology in motion

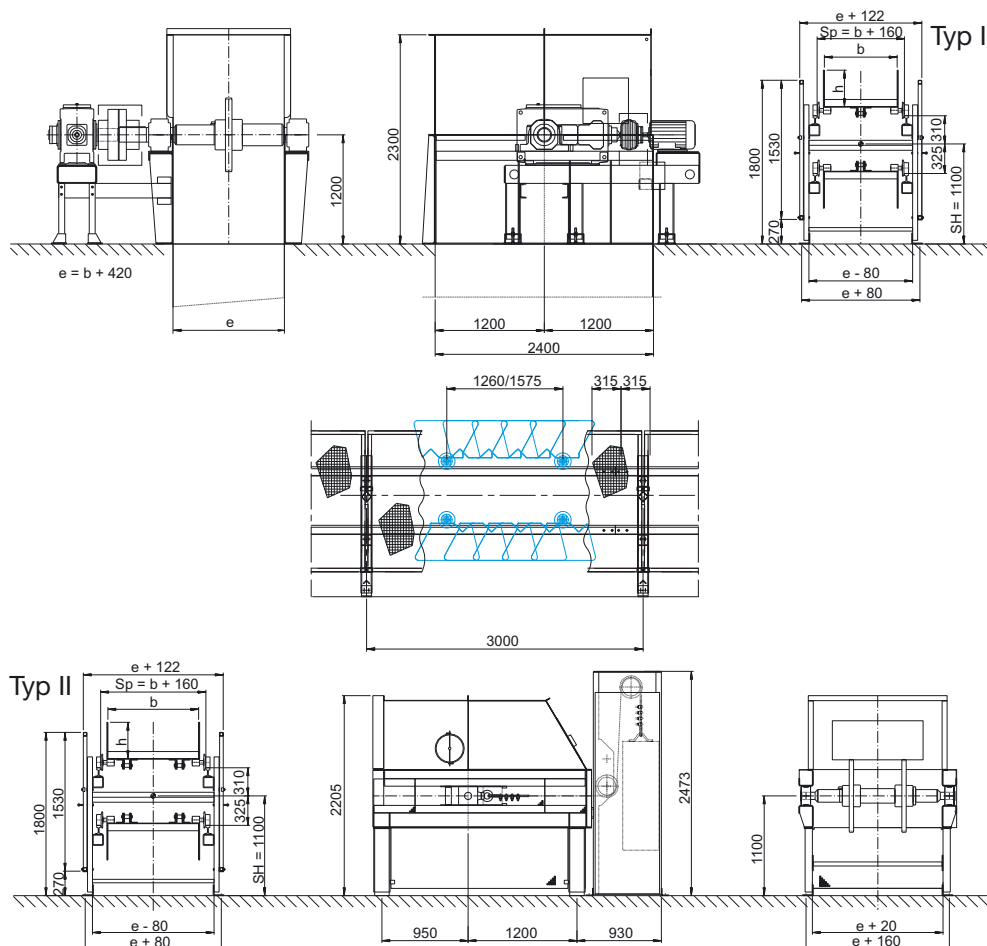
**CONVEYING TECHNOLOGY**  
LOADING TECHNOLOGY  
PALLETIZING TECHNOLOGY  
PACKAGING TECHNOLOGY  
SORTATION AND  
DISTRIBUTION SYSTEMS



**BEUMER**  
apron conveyor



	Angle of inclination $\alpha$	Filling level $\varphi$	Volume flow $Q_v$ in $m^3/h$									
			With a conveying speed $v = 0,3$ m/s and a cell height $h = 400$ mm									
			Cell width $b$ in mm									
			500	630	800	1000	1200	1400	1600	1800	2000	
Typ I/II-28	0 – 28°	100%	180	235	315	420	525	650	770	905	1045	
		80%	144	188	252	336	420	520	616	724	836	
Typ I/II-34	29°	100%	165	210	265	335	400	470	525	590	655	
		80%	132	168	212	268	320	376	420	472	524	
	34°	100%	150	190	245	305	370	430	485	550	615	
		80%	120	152	196	244	296	344	388	440	492	
Typ I/II-45	35°	100%	160	205	260	325	390	460	520	585	645	
		80%	128	164	208	260	312	368	416	468	516	
	40°	100%	155	195	250	315	380	440	500	565	625	
		80%	124	156	200	252	304	352	400	452	500	
	45°	100%	150	190	240	300	365	425	480	540	600	
		80%	120	152	192	240	292	340	384	432	480	



The information contained in this brochure merely serves as a non-binding description of our products and is without guarantee. Binding information, in particular relating to capacity data and suitability for specific applications, can only be provided within the framework of concrete inquiries.

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## **BEUMER conveying technology – The reliable solution to your conveying requirements**

The BEUMER MASCHINENFABRIK has concentrated its efforts in the field of conveying technology for more than 70 years and during that time has specialized in the manufacture of continuous conveyors.

The manufacturing program includes all types of mechanical conveying equipment for both bulk materials as well as piece goods.

Extensive in-depth testing within the company's research and development department forms the basis for the BEUMER technological leadership in materials handling.

BEUMER has continually presented and realized new developments to the industry to suit all specific applications. This includes the transport of hot materials which have always presented a challenge to the conveying industry.

BEUMER conveying technology fulfills the requirements of industry with conveyors that offer high capacities, long center distances, steep inclines, variable conveying routes, high service life and high availability handling of difficult materials.

Clinker silo feed,  
silo discharge and  
clinker bulk loading.  
Lafarge, France





**BEUMER**  
technology in motion



## BEUMER apron conveyor

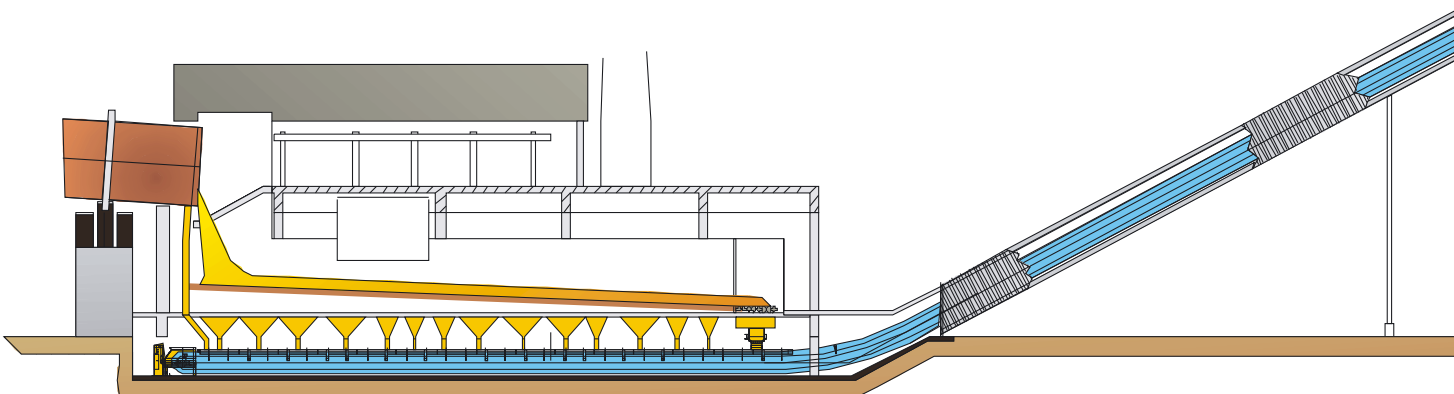
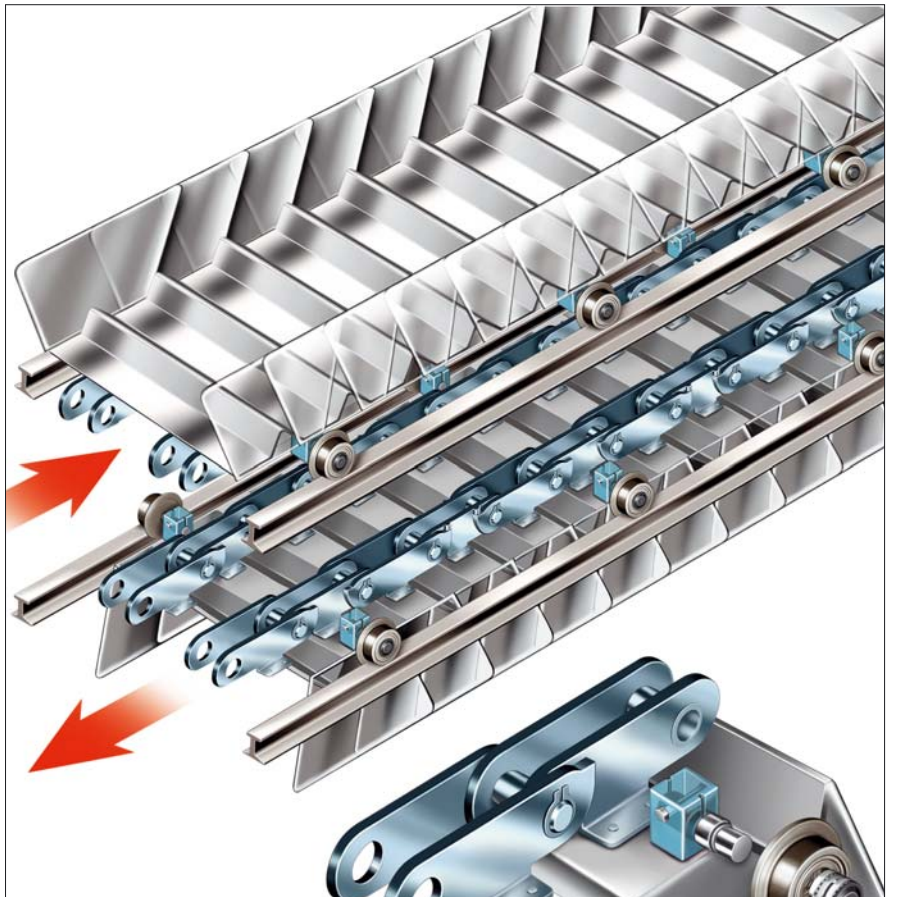
The BEUMER apron conveyor, with non-contact overlapping cells, provides a wear-proof seal between the cells. The sidewalls of each cell are offset to allow an overlapping effect when the chain goes around the sprockets.

The cells are attached to endless strands of chain that provide a proper spacing for clean and reliable conveying of the material. The apron conveyor will be equipped with a single strand of chain for conveyor widths up to 800 mm and double strand chains for wider widths.

For inclines up to 28 degrees the cells will be plain, but for steeper angles of up to 45 degrees, the cells will be fitted with an intermediate lifting plate allowing for the utilization of the new design advantages.

The flat link steel chains are rigidly designed and have a pitch of 315 mm.

The drive sprockets are furnished with replaceable wear-resistant toothed segments.





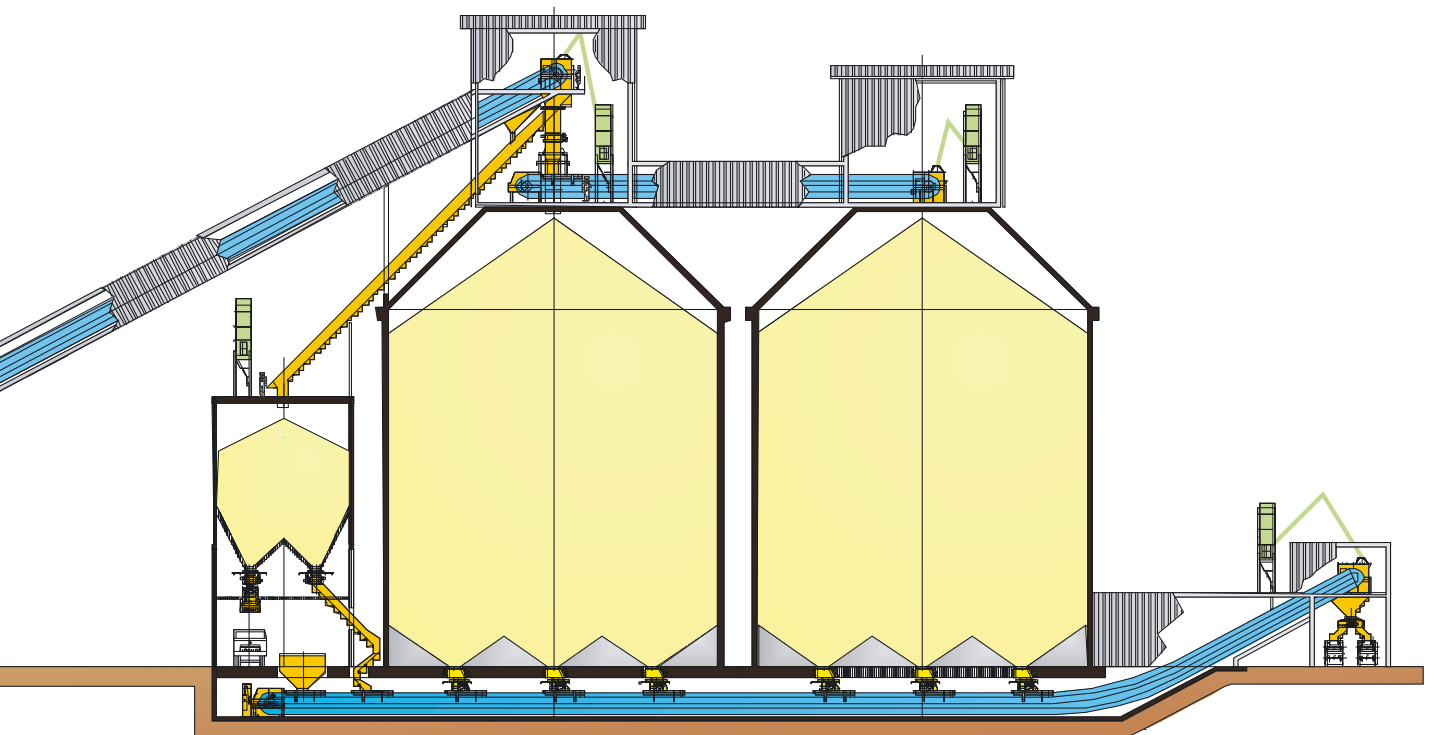
### Maximum operational reliability

The proven reliability of the components utilized in the BEUMER apron conveyor technology provides optimum trouble-free operation.

### The technical design features of the steel cell:

The special shape of the steel cell is important.

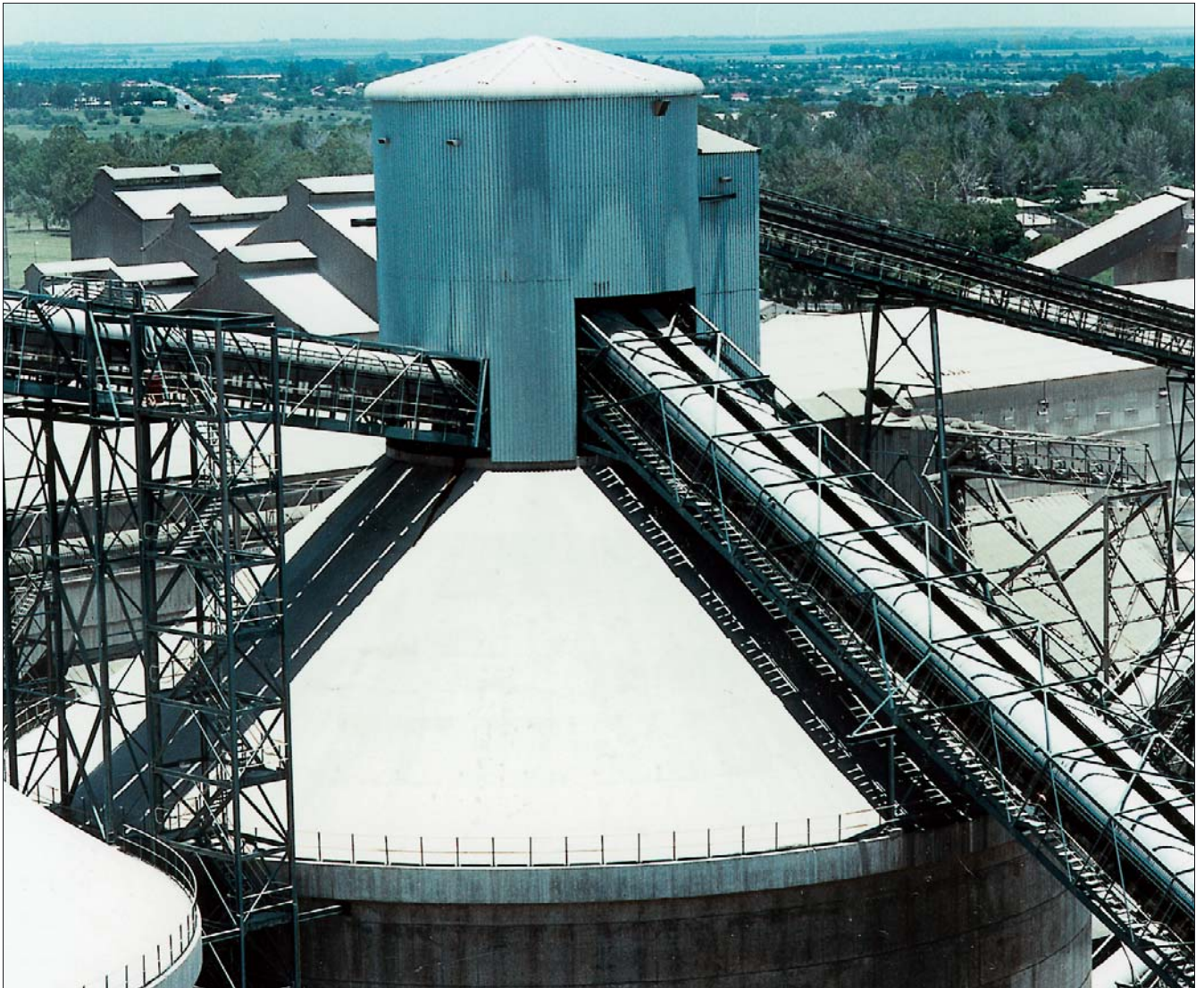
- The lateral rigidity of the cell is provided by the depth of the formed bottom plate
- The increased height provides a maximum non-contact overlapping between the cells and provides an effective seal
- Material integrity is guaranteed by the shape of the cells during closing
- The overlapping side walls prevent spillage when turning over the sprocket wheels
- The steel cells are precisely manufactured by the use of the latest high technology production methods
- These precision manufacturing techniques provide for trouble-free operation
- The method of mounting the support wheels with a clamping tube on the bottom of the cell provides a positive alignment of the wheels and eliminates any additional alignment during erection
- The changing of the rollers during maintenance can be done within minutes.



## BEUMER technology – the reliable solution to your conveying requirements

Hot materials, such as cement clinker, discharging from the kiln cooler with temperatures up to 600 °C subject conveyors to extreme conditions.

The BEUMER apron conveyors can meet demands with conveyor widths from 500 to 2000 mm, center distances of 250 m or more and capacities of 1255 m<sup>3</sup>/h.





## Technical features of the BEUMER apron conveyor

### The drive unit and the tensioning station

Standard toothed sprocket segments with wear reducing pitch design are of a replaceable type and can be reversed to provide maximum wear resistance.

- Safety devices to meet the specific safety regulations of the installation site.
- Loading guide with dust hood at the feed point projecting into the cell area to control dust emissions.
- Screw type or gravity take-ups are available.



### The runner

The runners are dependent on the load and will meet the following requirements:

- Long service life
- Wear resistance
- Smooth operation
- Dust-proof.
- These requirements are strictly enforced during construction.

### The chain

The chain is designed as a steel bushed roller chain with a pitch of 315 mm.

The breaking strength of the chain ranges from 450kN to 2700kN and the chains are designed to work as single or double strands.

The wide range of chain strengths provides the ability to select exactly the right chain for the service requirements.



### The silo discharge

A segmented gate is used as a discharge device between the silo and the steel apron conveyor. Gravity forces cause the material to flow to the conveyor.

The segmented gate is designed to close against a vertical material flow. A dedusting device is not required in this area when the gate is used as a discharge device.



### Long service life

The utilization of high-quality materials of construction, the latest in conveyor technology and proper application will provide a long service life and considerable savings.