AUMUND GROUP

AUMUND FÖRDERTECHNIK
SCHADE AUMUND GROUP
EUROSILO AUMUND GROUP
SAMSON AUMUND GROUP
TILEMANN AUMUND GROUP
FIELD SERVICE AUMUND GROUP
LOGISTIC AUMUND GROUP

THE AUMUND GROUP OF COMPANIES

Partnering industry sectors

Loading and Unloading
SAMSON Materials Handling

Logistic Services
AUMUND Logistic

Conveying
AUMUND Fördertechnik

Storage and Reclaiming
SCHADE Lagertechnik

Silo Technology
ESI Eurosilo

Service for plant availability

Chains and Components
TILEMANN

Maintenance
PREMAS

Field Service
AUMUND Group Field Service

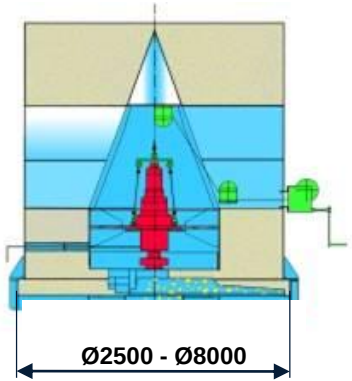
Conversion
AUMUND Fördertechnik

After Sales
AUMUND Fördertechnik

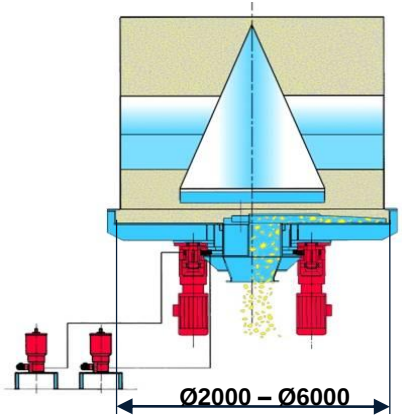
KEINE BLOCKADEN MEHR: DIE WELT DER SILOAUSTRAGSHILFEN

CENTREX®

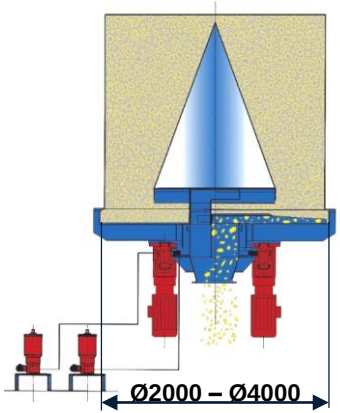
Centrex-IV
I = inner drive
V = stationary cone



Centrex-AV
A = external drive
V = stationary cone



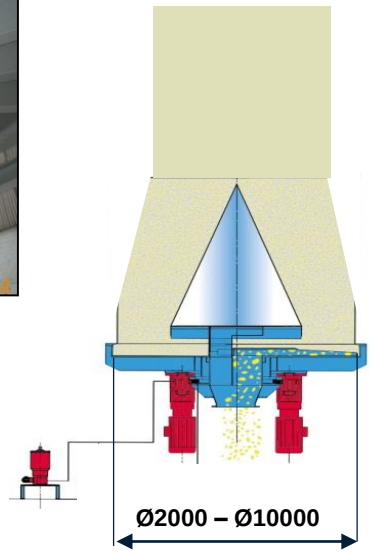
Centrex-AFW
A = external drive
F = rotating cone
W = cone fixed with roller bearing mounted to the rotating chute
2. rotary joint



diameter
Over Ø8000

→ **RRDM (BEW-K)**

CENTREX®



Rotor 8.000;
150 t/h FGD-Gypsum
incl. Silo

CENTREX®

Controlled Rate Feeding

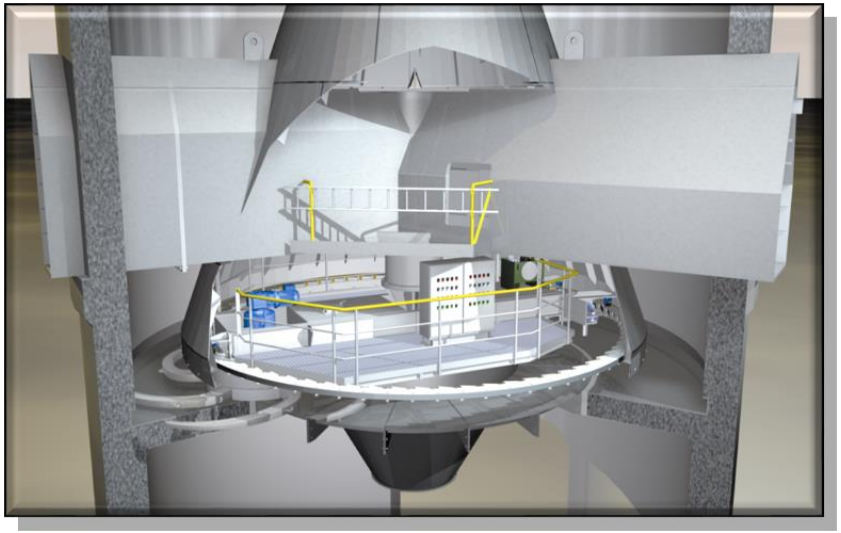
Rope winch
to remove drive unit

Maintenance access

Function & Features of CENTREX®

- First-in-First-out concept
- 100% live capacity (mass flow)
- No segregation or bridge formation
- provide reliable extraction of the most difficult materials including FGD Gypsum
- Capacity up to 1000 t/h
- Silo diameter from 2 m up to 10 m
- Logrithmically shaped, sheathed discharge arm
- frequency controlled drive unit
- Simultaneous feed and extraction (RRDM)

Rotating Rotary Discharge Machine RRDM

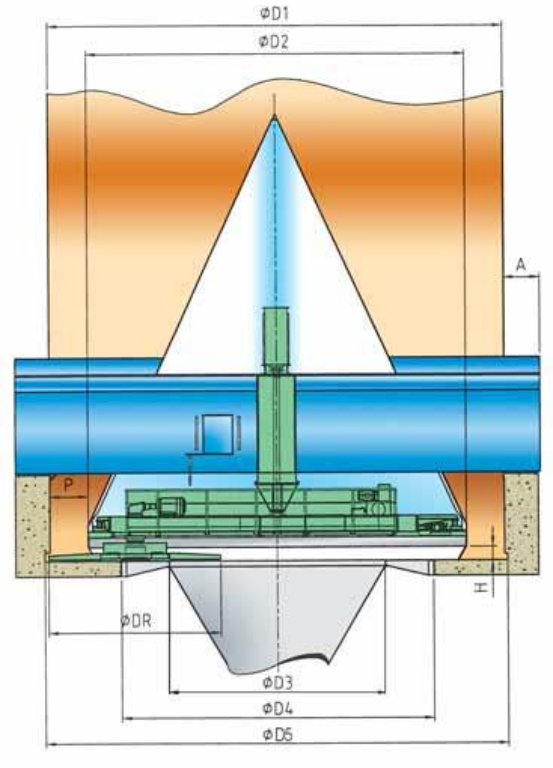


Silo and discharge opening –
Standard diameter

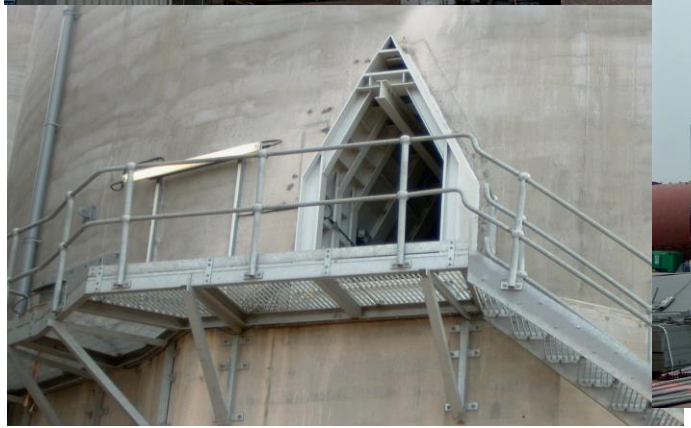
Ø 8 m, Ø 9 m, Ø 10 m, Ø 12 m

Rotating Rotary Discharge Machine RRDM

Single Discharge Wheel with six arms

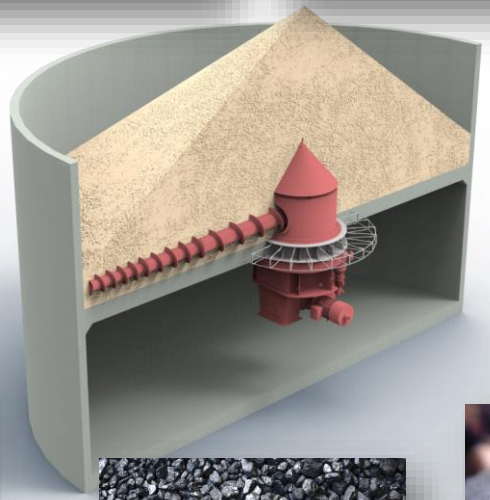


RRDM Assembling at site (inner cone Ø 8 m)



Rotating Screw Discharger RSD

- Wood chips
- Wood dust
- Pellets
- Briquettes



- RDF
- Bypass dust
- Animal meal
- Cellulose
- Coal
- Salt

Rotating Screw Discharger RSD

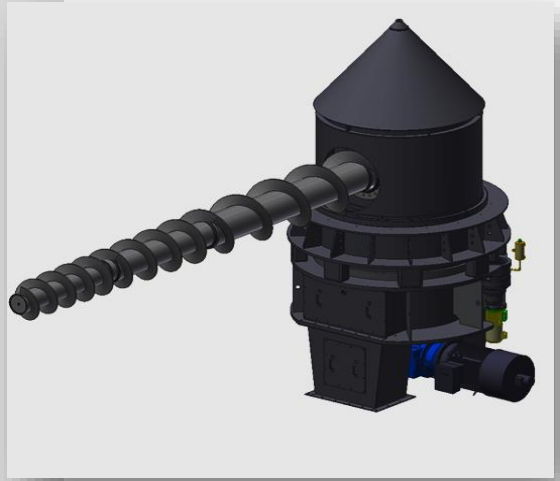
Rotating Screw Discharger RSD

**The shaft can be made of hard facing;
with screwed teeth; lined with ceramics.**

Rotating Screw Discharger RSD

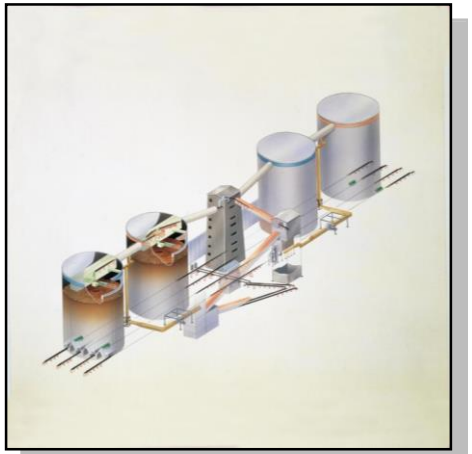
RSD Function & Features

- First-in-First-out concept
- Capacity from 5 m^3/h up to 450 m^3/h
- Silo diameter from 3m up to 25m
- Material temperature up to 200°C, peak 240°C (bypass dust)
- Consistent and reliable output rate control
- Range of adjustment 10 - 100% of nominal discharge even 1 – 100% (if special VFC are used)
- VFC protects the drive system against overloading
- Operates with vector frequency converter (ABB or similiar)
- ATEX 21/22 possible
- Not advisable for bad flowing and compacting materials
- No mass flow

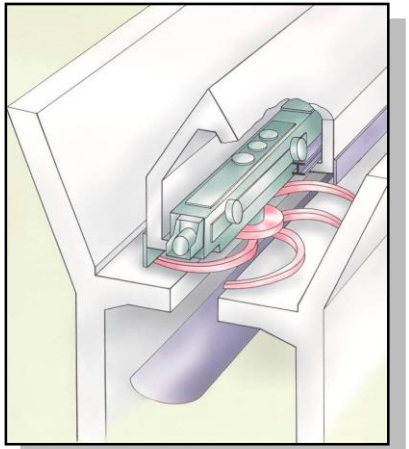


Rotary Discharge Machine RDM

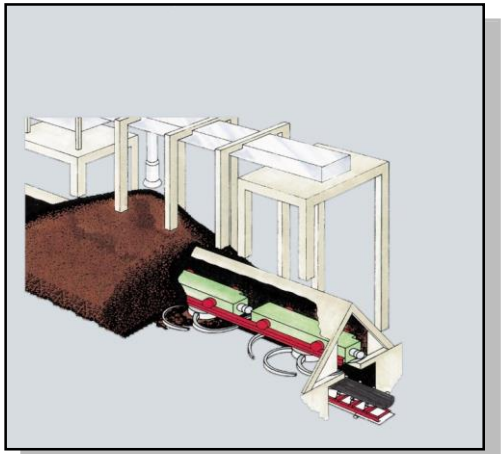
Reclaims Material From:



Silo Batteries



Long Hoppers

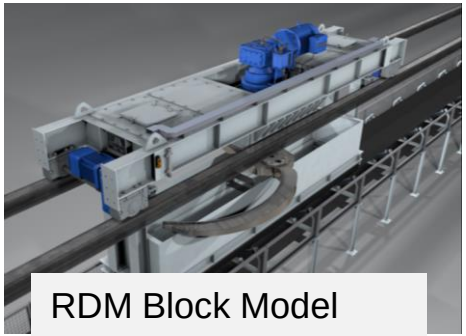


Open Stockpiles

Bunker discharge machines ensure reliable discharge of even difficult bulk materials from storage, stockpiles, bunkers and silos

Rotary Discharge Machine RDM – different types

RDM Block Model



RDM Block Model Frame

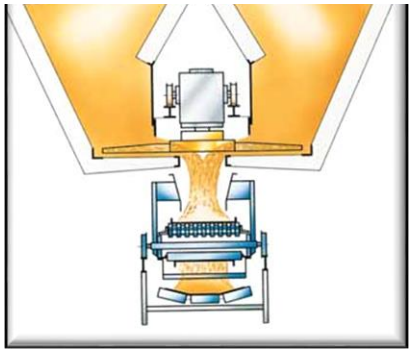
RDM Flat Model

RDM Flat Model with swivel drive

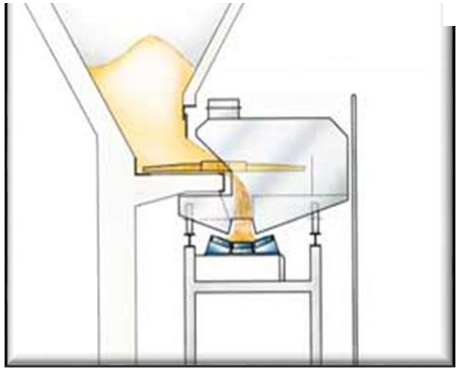
RDM Portal Model

Rotary Discharge Machine RDM – installation options

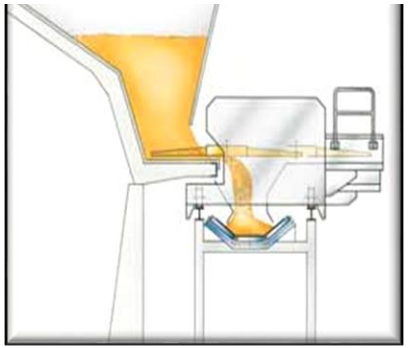
RDM Block Model / RDM Block Model Frame discharge on both sides



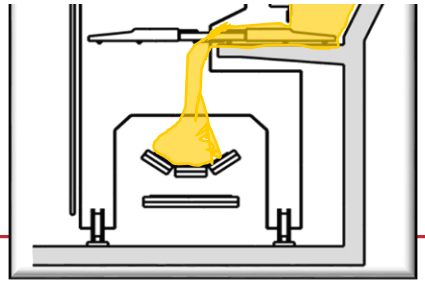
RDM with single-side discharge



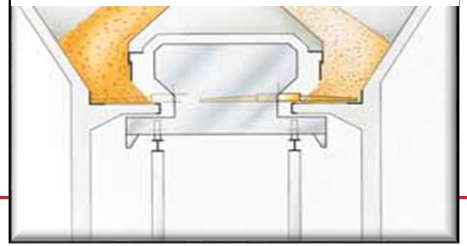
RDM with single swivel drive for single-side discharge



RDM portal model single-side discharge

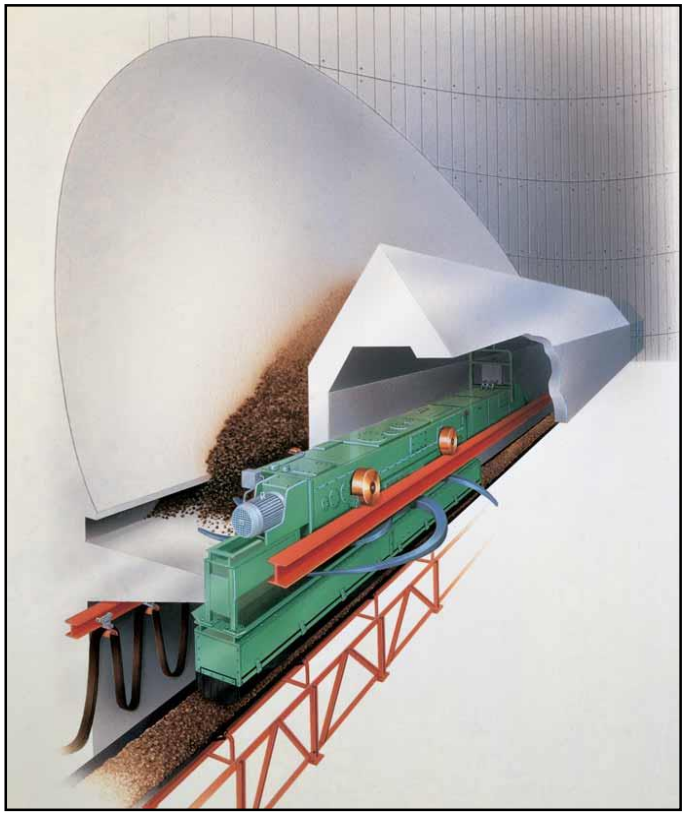


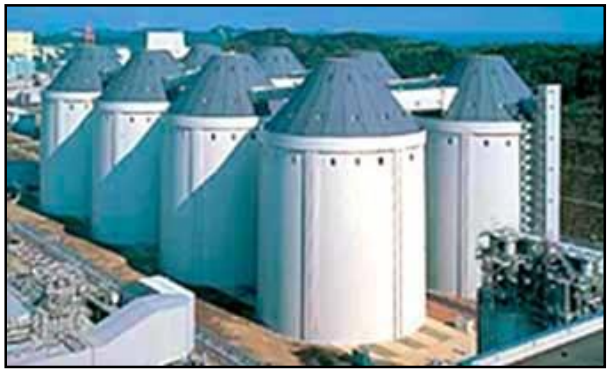
RDM with double swivel drive for single side discharge on both sides

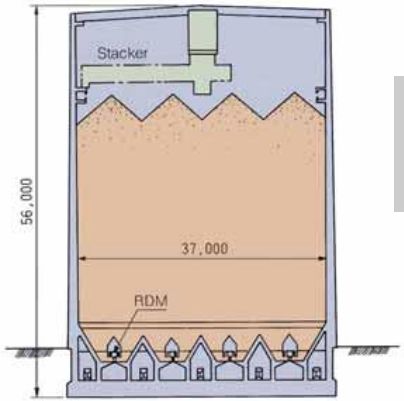


Various Discharge Configurations to suit the particular site layout and access requirements

Longitudinal Rotary Discharge







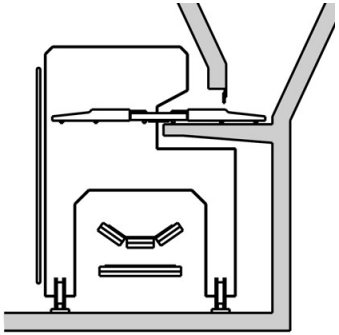
RDM
for Multiple Silos

Stockpile Discharge usind a RDM

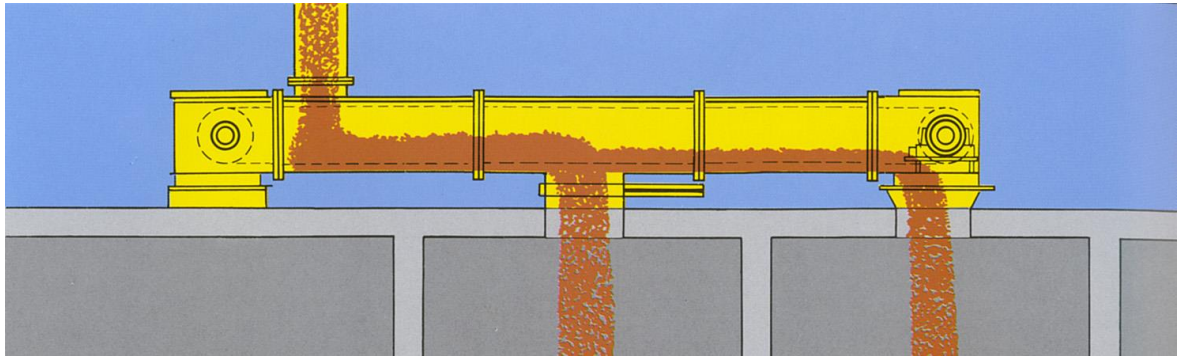
The RDM Travels Under the Storage to recover the material

RDM Function & Features

- First in – First out
- Simultaneous Feeding and Discharging
- Material Blending Possible
- Combination of Multiple Machines in one Row possible
- Controlled and adjustable Reclaiming of Material
- For Every Sticky and Poor Flowing Material
- For Discharge Capacities up to 5.000 m^3/h
- Low Power Demand
- 2 or 6 Discharge Arms - Low Torque of Each Arm
- travel speed (discharging) 1,0 m/min, (without discharging) 10m/min
- Maintenance with Filled Silo Possible
- Easy Access



Trough Chain Conveyor TKF



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

- Cement
- Raw meal
- Filter dust
- Coal, Slag
- Limestone & Burnt lime
- Natural & FGD gypsum
- Fertilizer
- Ash
- Iron Ore, Copper Ore
- Alternative fuel eg. RDF
- Sewage sludge
- Cereal grains

Trough Chain Conveyor TKF

Coal Feeder

En Masse TKF

Single strand TKF

En Masse TKF

Filter Dust Discharge

Double strand TKF

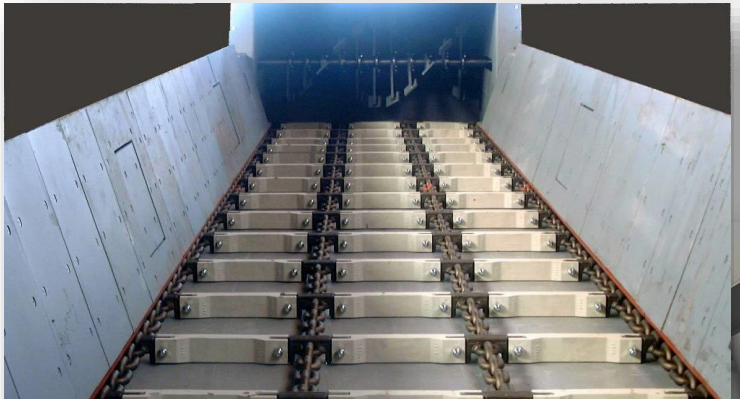
TKF Function & Features

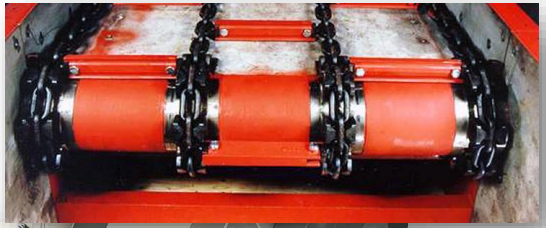
For each project, the TKF conveyors are individually adjusted according to the bulk material properties and the geometrical requirements.

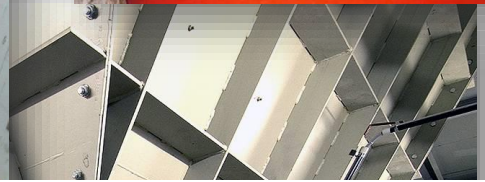
- conveying width up to 2000mm
- capacity up to 630 t/h (material depending)
- lengths of 50m and more
- forged and surface-hardened forged fork-linked chains
- single or double strand chain depending on the application
- high tensile strength
- flights selectable as appropriate for bulk material characteristics
- different Conveying arrangement selectable
- Dust-tight components also available in gas and pressure-tight construction

Limestone handling

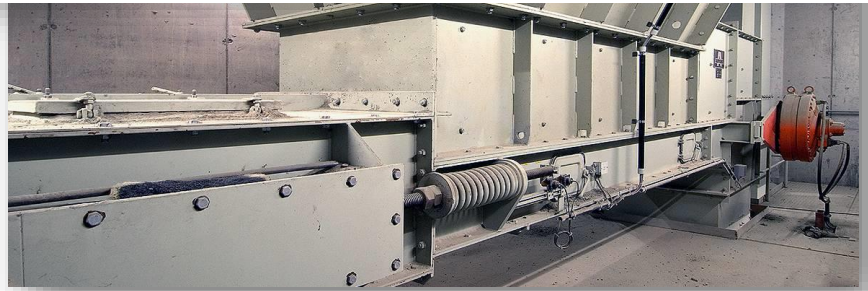
Armoured Chain Convyor PKF



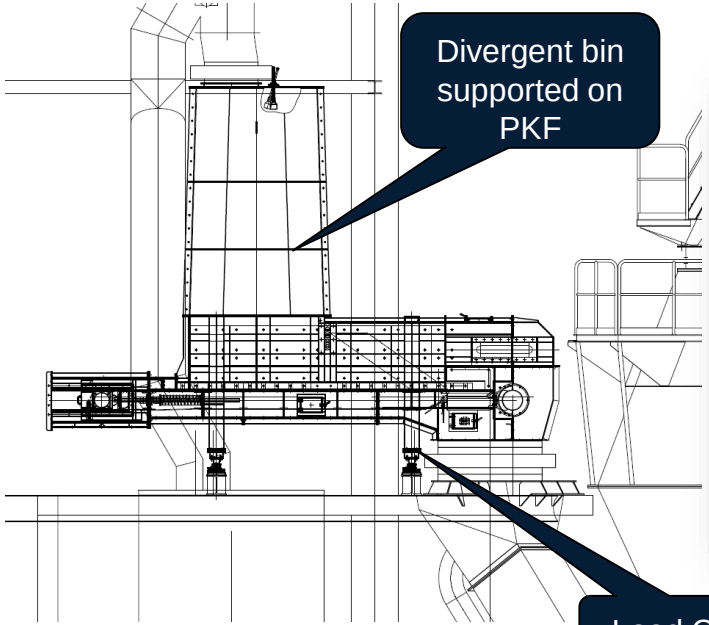




The Armoured Plate Conveyor PKF is used in the cement, lime and gypsum industry for hopper discharge of crushed limestone or for cohesive raw materials such as chalk, gypsum, marl, clay or raw coal.

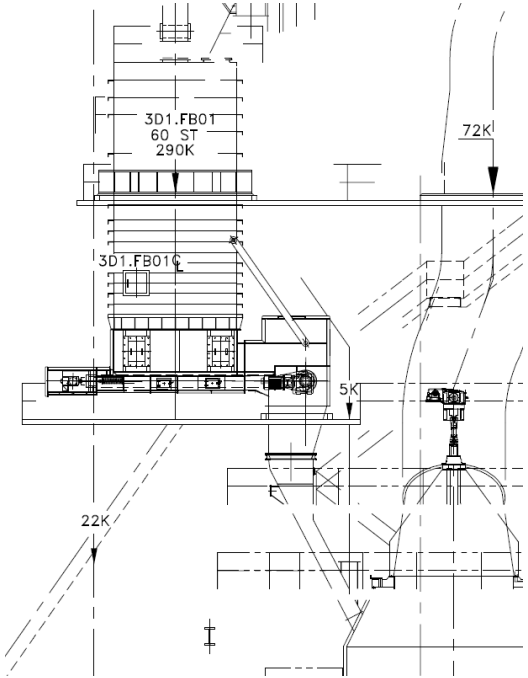


PKF for mill feeding



Dust and pressure tight feed of raw mill. Material in bin seals the mill. Bin and conveyor are located on load cells for feed control. Weighing process is only dis-continuously, different to weigh feeders.

PKF for mill feeding



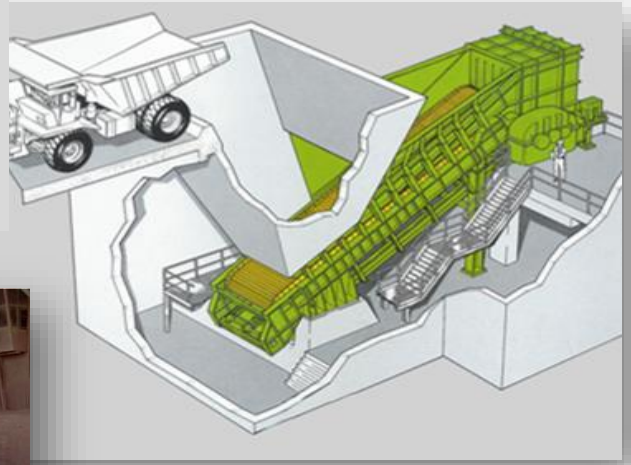
Dust and pressure tight feed of raw mill. Material in bin seals the mill. Conveyor is flanged to bin outlet flange. Bin is supported on load cells on level above

PKF Function & Features

- Very small installation height
- Material lumps up to 250mm
- Construction width 600 – 2600 mm
- Used for heavy duty applications above Aumund drag chain conveyor (TKF) range
- Round link chains and specially formed scrapers for cohesive materials
- Chain strand with 2 – 5 chains
- Flight arrangement depending on application
- 3 Chain sizes available
- Capacity up to 1875 m^3/h (depending on bulk material)
- No spillage (will be transported via lower run again into the upper run)
- Clean operation because closed unit (dust tight)

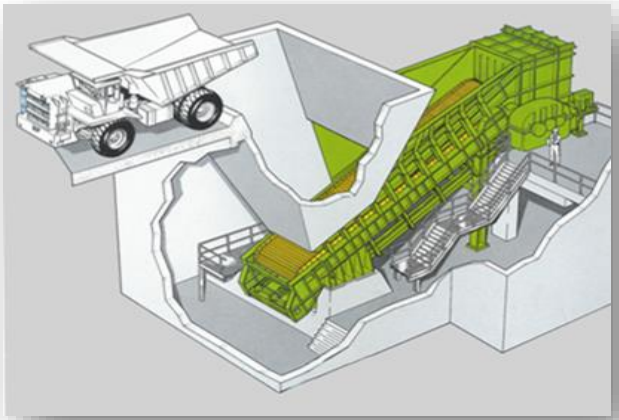
Apron Feeders type BPB / BPB-SF

- hopper discharge of moist and cohesive bulk materials
- to feed large lumps of hard and abrasive ores under high impact conditions
- reliable operation with very low maintenance and downtime
- controlled rate of speed
- robust design
- Lump sizes up to 2000 mm

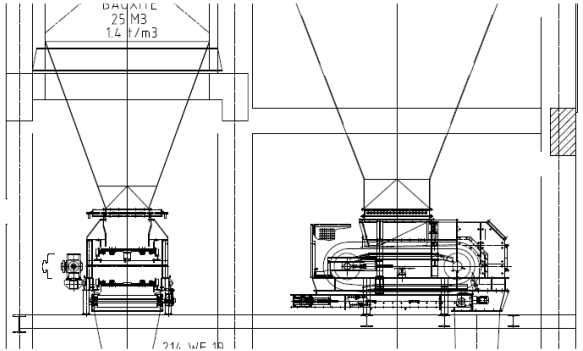


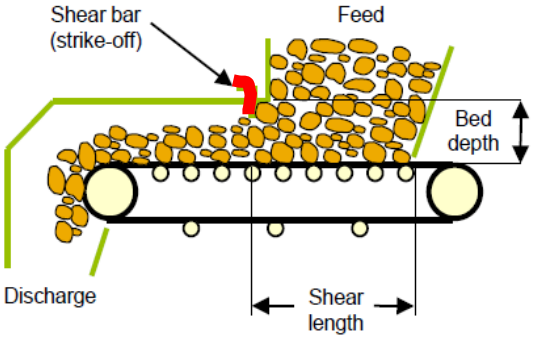
Apron Feeders – General Arrangement

Open hopper design
(no shearing / levelling bar)

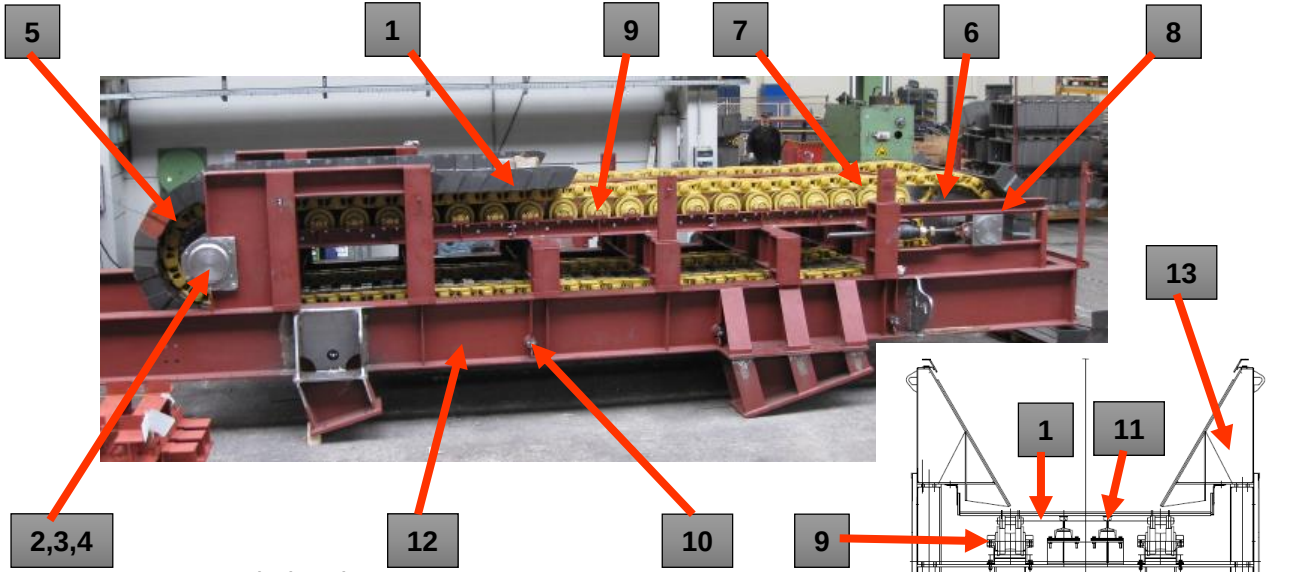


Closed hopper design
(with shearing / levelling bar)



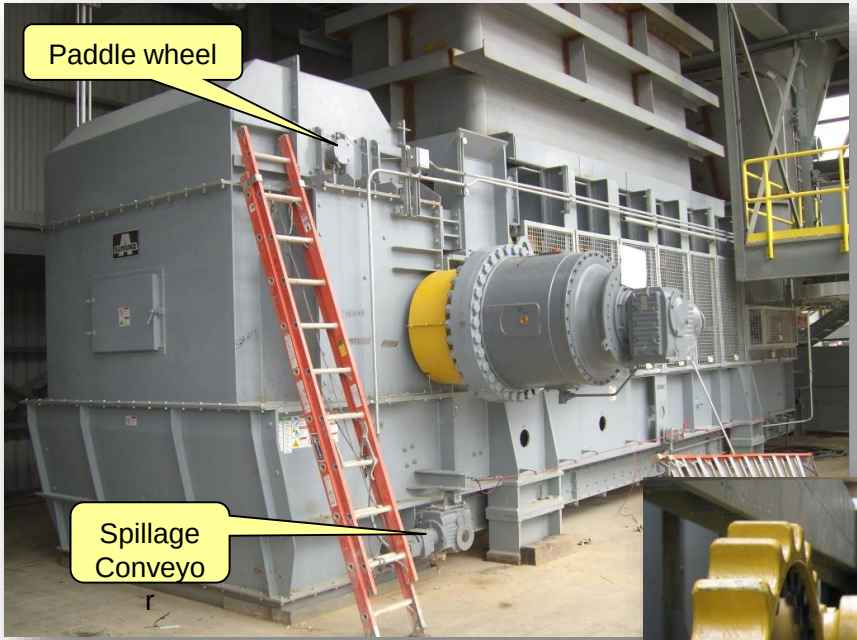


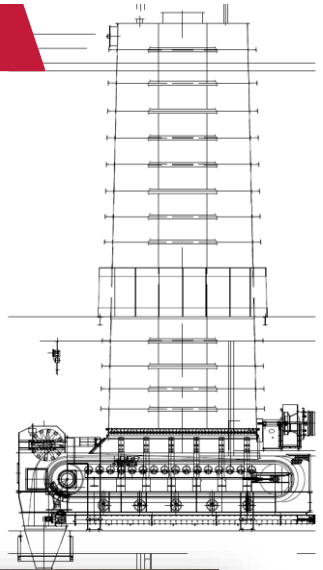
Apron Feeder BPB-SF – Main Components



1. Pans (apron plates)
2. Main drive
3. Head shaft
4. Head shaft bearings
5. Drive sprockets
6. Tailwheel
7. Chain
8. Chain take-up
9. Carry (top) rollers
10. Return (bottom) rollers
11. Impact rail
12. Frame
13. Skirt
14. Accessories (hood, safety guards etc.

Apron Feeder BPB-SF – References





Divergent clay bin, dimension 1,8 m wide, 6 m long and 15 m high with about 150 m³

Double drive each having 1.000 kNm

Apron Feeder BPB-SF – References

BPB-SF 2800 – D10 feed to mill via 2,8 m wide weigh feeder

Located underneath 1000t clay bin with outlet 2,6 x 8 m

Conveying capacity 800t/h, with 2x spillage conveyor RFG-S, paddle wheel

All drives are double drives, main drives 2 x 685.000 Nm

Exchange of 2-year old failing Chinese feeder at Heidelberger / Russia

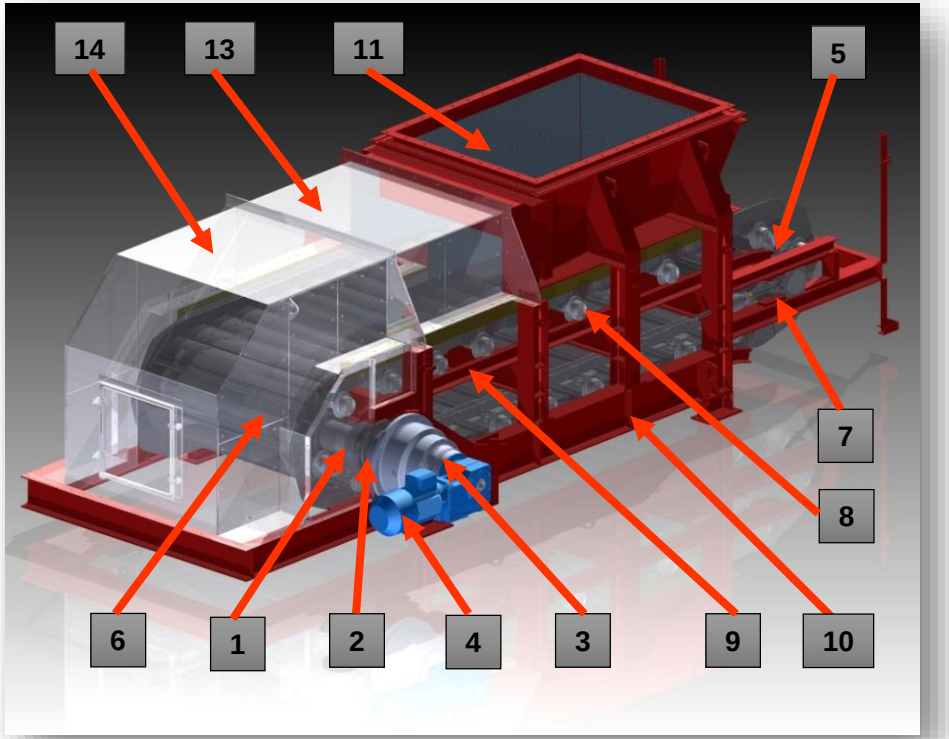
Apron Feeder BPB-SF – References

BPB-SF 2000-D5 under 1000 t raw material bin

Apron Feeder BPB 250/160 – Main Components

1. Drive shaft with sprocket
2. Head shaft bearings
3. Main planetary drive
4. Motor
5. Tailshaft with sprocket
6. Chain strand with pans
7. Chain take-up
8. Outboard rollers
9. Rails
10. Frame
11. Skirt part 1 (+shear gate)
12. Skirt part 2
13. Drive hood
14. Safety guards

Plate width 600 – 2000 mm
C-C from 2,3



Apron Feeder BPB 250/160 – References

- Application : 2 x BPB250-1600 ,
- C-C 9 m
- Feeding 150 t/h natural Gypsum and Clinker received by shovel loaders and crane shovel to bucket elevator
- BPB250 apron feeder with standard frame but special skirt and small integrated hopper.
- Customer : Cemex Rudniki Plant, Poland

Apron Feeder BPB 250/160 – References

- BPB-250 as totally enclosed feeders for 150 t/h coal mill feeding with raw lignite coal
- Pressure tight 1 bar , Operation with 20 mbar underpressure
- 16 feeders in total, 8 per power block of a coal power plant of RWE
- Ex-change of 16 new Chinese feeder failing after 1,5 years operation

Apron Feeder BPB 250/160 – References

- BPB-160 with welded apron plates and reduced installation height, Customer: Holcim Lägerdorf
- Feeding 1,1 – 15 t7h wet raw chalk 30% moisture to dryer, 8 m bin length
- Spillage conveyor and paddle wheel as optional equipment

Apron Feeder types BPB-SF / BPB 250/160 – Comparison

Type BPB 250 /160

- Grain size max. approx. 300 mm
- Plate width 600 – 2200 mm
- Pan thickness 6 – 10 mm
- Conveying capacity up to 1.500 t/h
- AUMUND chains type
- Outboard rollers
- Speed max.0,3 m/sec. similar KZB
- Installation height 1,8 -2,2

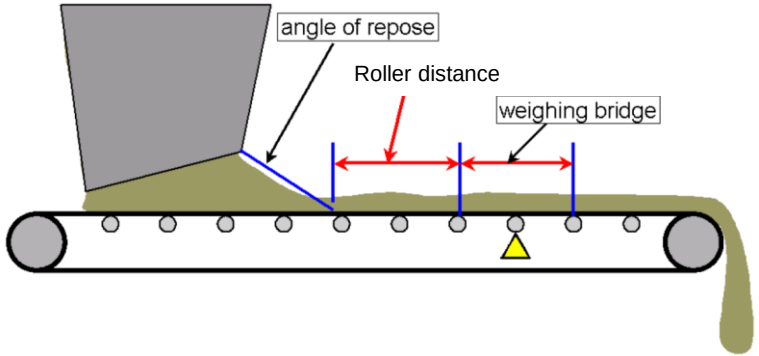
Type BPB SF

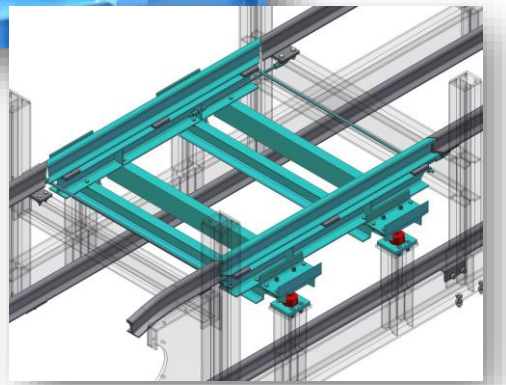
- Grain size max. approx. 2000 mm
- Plate width 800 – 3000 mm
- Pan thickness 20 – 70 mm
- Conveying capacity up to 10.000 t/h
- forged CAT chains type
- heavy duty impact roller
- Speed max 0,4 m/sec
- Installation height 2,2 -2,8

Integrated weighing system is possible

Apron Weigh Feeder type DPB

- Weigh Rail length approx. 1000mm
- Needed space between bin outlet and drive shaft approx. 2200 mm.
- weighing system supplier Schenck or Siemens





Apron Weigh Feeder type DPB - References

Apron Weigh Feeder type DPB - References

Apron Weigh Feeder type DPB - References

THANK YOU