



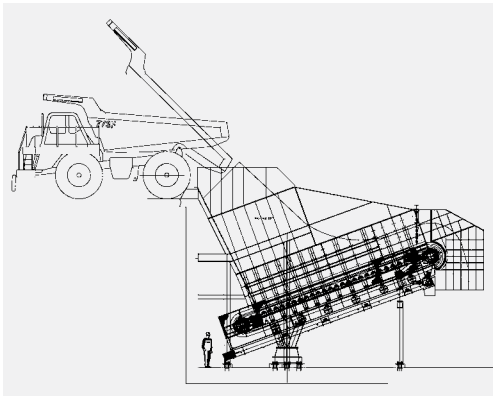
Apron Feeders



Main applications for Apron Feeders

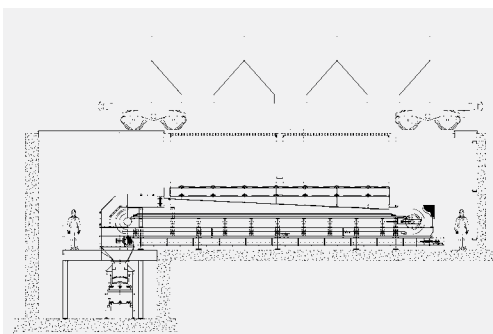
Crusher feeding

- Intake of run-of-mine material directly from dump trucks
- Unloading of multiple trucks at once
- Material size up to 1,500 mm
- Each unit is tailor-made to suit crusher



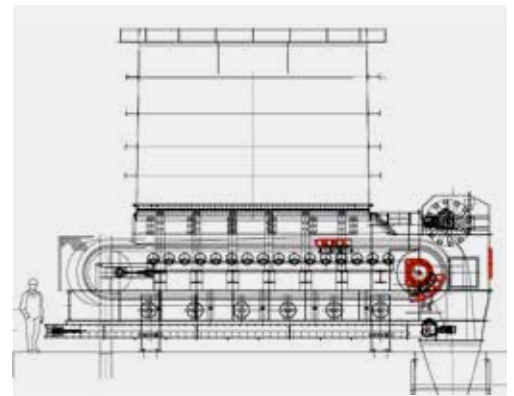
Wagon unloading

- Unloading of material of any size range
- One machine covers full range of materials (from fertilizers to ore)
- Suitable for unloading in combination with wagon tippler (unloading of one, two or more wagons at once)
- Suitable for abrasive materials
- High impact load resistance



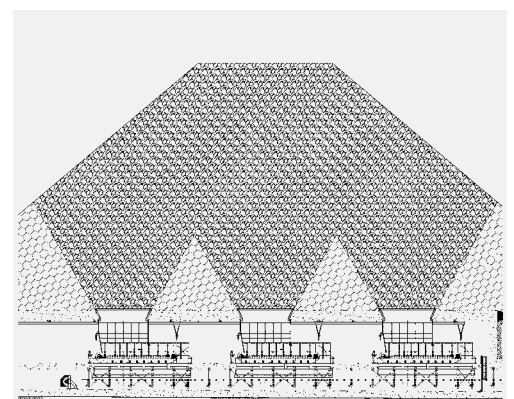
Hopper discharge

- Plates of width up to 3,000 mm activate the entire material column
- Vertical or even negative angle walls for extremely sticky materials (e.g. clay)
- No bridging or sticking on the walls
- Special plate shape for better cleaning
- Integrated metering and weighing is possible



Stockpile discharge

- Several short feeders in series
- Minimum running maintenance
- Unlimited stockpile height
- Robust design
- Reliable material extraction



Extreme Heavy-Duty Apron Feeders type BPB-SF

General characteristics

- Plate width up to 4,000 mm
- Length up to 50 m
- Inclination up to 27°
- Capacity up to 10,000 t/h
- Variable speed drive for metering
- Tailor-made machines with infinite variability of sizes and parameters

Materials

- Ores
 - Coal
 - Limestone
 - Clay
 - Lime
 - Natural Gypsum, Phospo Gypsum
 - Petcoke
 - Aggregates
-
- Complete pre-assembly and test run in AUMUND premises
 - Transportation of pre-assembled machine for easy erection and fast commissioning



Extreme Heavy-Duty Apron Feeders type BPB-SF



Design details

Drive shaft with hardened sprockets. The segments can be changed without opening of the chain.

In order to cover widest range of capacities all types of Caterpillar (crawler under-carriage) heavy-duty chains can be used.

The chain carrying rollers are designed for high impact loads and harsh working conditions, using anti-friction bearings. Bearing rollers are located under the return chains.

Depending on the material properties, the aprons can be manufactured both in flat or arched design (for sticky materials).

On request aprons can be made from welded or cast plates.

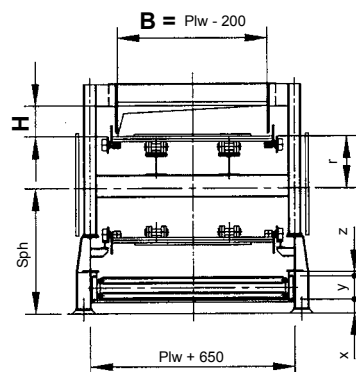
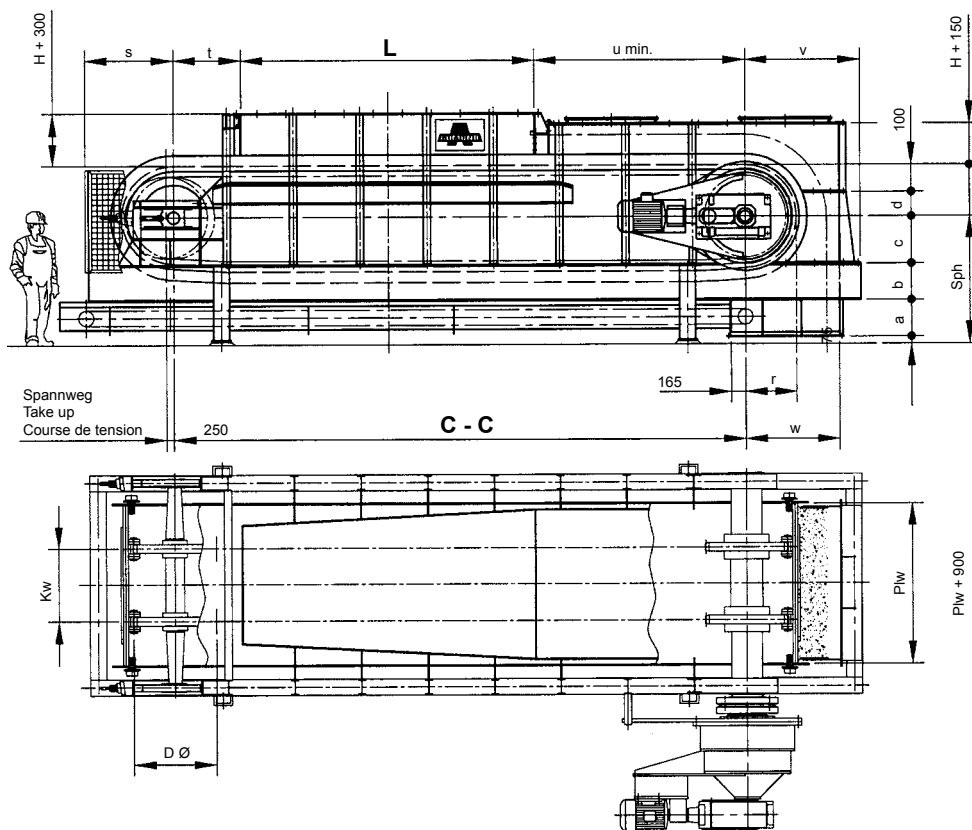
Heavy-duty frame consists of longitudinal bars of the main frame beams and cross bars which provide rigid support for moving elements.

Drive unit with planetary or bevel helical gear boxes of worldwide leading manufacturers. For usage in cold areas drive units are equipped with special oil heating system.



BPB-SF: Dimension sheets

Conveying Capacities TYP BPB -S																
		Theoretical capacity Q [m³/h]														
Plw.	Layer height		Conveying Speed [m/s]													
	[mm]	+/-	0,05	+/-	0,1	+/-	0,15	+/-	0,2	+/-	0,25	+/-	0,3	+/-	0,35	+/-
1000	500	100	72	14	144	29	216	43	288	58	360	72	432	86	432	86
1200	600	100	108	18	216	36	324	54	432	72	540	90	648	108	648	108
1400	700	100	151	22	302	43	454	65	605	86	756	108	907	130	907	130
1600	800	100	202	25	403	50	605	76	806	101	1008	126	1210	151	1210	151
1800	800	100	230	29	461	58	691	86	922	115	1152	144	1382	173	1382	173
2000	900	150	292	49	583	97	875	146	1166	194	1458	243	1750	292	1750	292
2200	1000	150	360	54	720	108	1080	162	1440	216	1800	270	2160	324	2160	324
2400	1100	150	436	59	871	119	1307	178	1742	238	2178	297	2614	356	3049	356
2600	1200	200	518	86	1037	173	1555	259	2074	346	2592	432	3110	518	3629	518
2800	1300	200	608	94	1217	187	1825	281	2434	374	3042	468	3650	562	4259	562
3000	1500	200	756	101	1512	202	2268	302	3024	403	3780	504	4536	605	5292	605



Chain	D Ø	r	a	b	c	d	s	t	u	v	w
Chaîne	Type	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
D4D	689,4	408	470	400	430	308	1000	650	1250	1500	1200
D5B	761,0	454	470	500	380	354	1100	700	1250	1600	1300
D6D	817,1	501	470	500	430	401	1100	750	1250	1600	1300
D7G	868,1	540	470	600	380	440	1200	800	1250	1700	1400
D8K	991,3	615	470	600	430	515	1200	900	1250	1700	1400
D9H	1128,9	708	470	800	330	608	1300	1000	1350	1800	1500

Chain	x	y	z	Sph	Kw	Pan width
Chaîne	Type	mm	mm	mm	mm	Largeur de augets
D4D	180	330	60	1400	Plw - 600	1000 - 1800
D5B	180	330	60	1450	Plw - 600	1000 - 2000
D6D	180	330	60	1500	Plw - 600	1400 - 2400
D7G	180	330	60	1550	Plw - 600	1600 - 2600
D8K	180	330	60	1600	Plw - 800	1800 - 2800
D9H	180	330	60	1700	Plw - 800	1800 - 3000

BPB-SF: Special options



Lump breaker

For breaking up and homogenisation of conglomerated material (necessary for on-going weighing and metering).

Spillage conveyor for containment of fines. The spillage conveyor can be designed as a scraper chain or as a belt conveyor.

Integrated material guidance ensures controlled material flow and accurate distance between the hopper structures and apron surface. Depending on material properties, the guidance is equipped with adequate wear resistance lining.



Control and automation unit for control of drive, coupling, lubrication systems as well as for on-going weights.

Impact beams with polymer lining with automatic lubrication over the length of impact beams.



BPB/KZB-S for medium duty applications

- Economic solution for discharge of hoppers and stockpiles with medium loads
- Plate width up to 2,400 mm
- Capacity up to 1,500 t/h
- When combined with weight scale, unit can provide integrated discharging, weighing and metering
- Run rollers with life time lubrication
- AUMUND design chains cover wide range of capacities
- Options: spillage conveyor, lump breaker



Chart of conveying Arched Plate Conveyor type BPB					
Conveyor section		Theoretical capacity (m ³ /h)			
Width P/W (mm)	Standard layer height (mm)	Conveyor speed (m/s)			
		0.05	0.1	0.15	0.20
800	400 +/- 100	50 +/- 12	100 +/- 25	151 +/- 37	210 +/- 50
1,000	400 +/- 100	64 +/- 16	129 +/- 32	194 +/- 48	259 +/- 64
1,200	600 +/- 100	118 +/- 19	237 +/- 39	356 +/- 59	475 +/- 79
1,400	800 +/- 100	187 +/- 23	374 +/- 46	561 +/- 70	748 +/- 93
1,600	800 +/- 100	216 +/- 27	432 +/- 54	648 +/- 81	864 +/- 108
1,800	800 +/- 100	244 +/- 30	489 +/- 61	734 +/- 91	979 +/- 122
2,000	800 +/- 100	273 +/- 34	547 +/- 68	820 +/- 102	1,094 +/- 136
2,200	800 +/- 100	302 +/- 37	604 +/- 75	907 +/- 113	1,209 +/- 151
2,400	800 +/- 100	331 +/- 41	662 +/- 82	993 +/- 124	1,324 +/- 165

Min. layer height 2.5 x max piece size
 Max. layer height = plate width 400-1,000 mm
 Conveying speed 0-0.2 m/s
 The actual conveying capacity depends on the lump size and the layer height chosen.
 Capacity reduction factor 0.9-1.0.
 Thickness of the plate 8-10 mm.

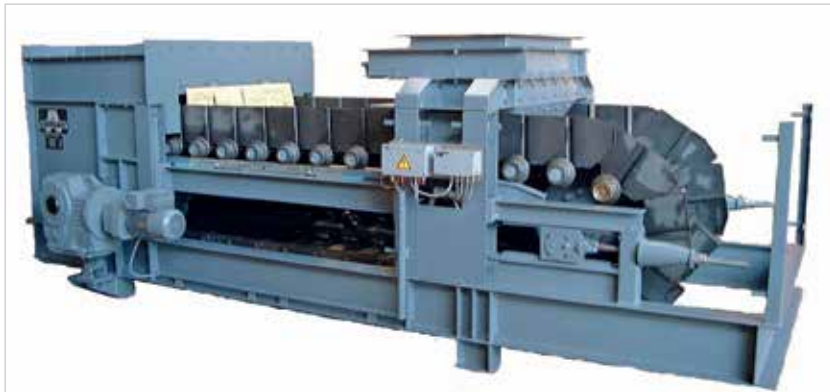
Apron Weigh Feeder DPB



The possibility of combining material extraction from the hopper, weighing and metering in one machine.

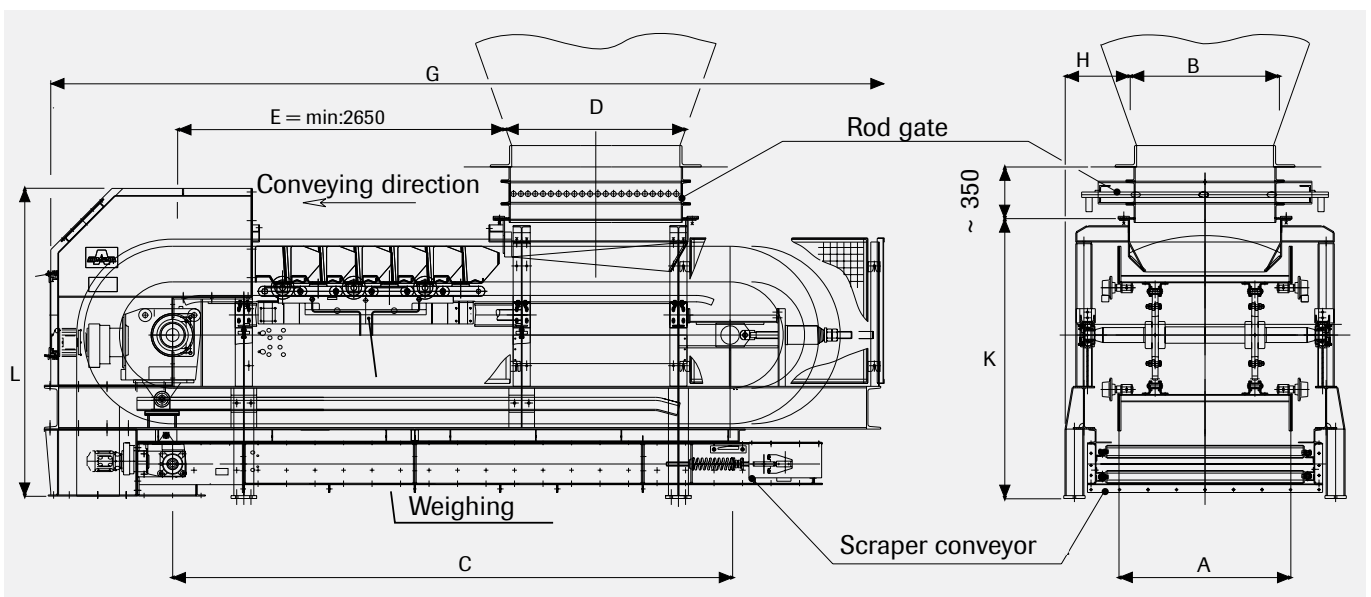
For applications where usage of belt weigh feeder is not possible.

- Suitable for high temperatures (up to 400°C)
- Suitable for abrasive material
- Plate width up to 1,800 mm allows installing the feeder under silos with sticky material and extracting material by wide streaming



Various weight measuring solutions, depending on material, geometry and feeding type into the feeder (extraction from the hopper, straight feeding by dipper, etc.).

Full preassembly and calibration are provided in our plant.



Hybrid Feeder type BPB Hybrid

Hybrid feeder is a combination of our Samson® Feeder with a heavy-duty Apron Feeder.

Wide range of bulk materials:
fine, sticky, high bulk density.

With the lateral arrangement of the bearing chains and special shape of the plates, there is the significant reduction in the total height of the feeder.

Protection against spillage is provided by the application of a special rubber belt on metal plates.

The flat design allows for reduction of the pit depth when receiving material from trucks or wagons.

With the flat design, mobile applications of this feeder are possible, such as:

- Frame with sleds (moving by crane)
- Wheel set (moving by tractor)
- Wheel set with a drive
- Tracked with a drive



Retrofitting

Cost saving of up to 60% compared to a new machine.

Lower investments, less stand-by time.

- Adaptation to the latest state of the art
- Adaptation to the desired capacity increase
- Longer maintenance intervals
- AUMUND original spare parts for wear parts
- 24/7 service availability worldwide
- When retrofitting existing machines, the existing hopper is used and the material guidance adapted to the new conveyor sections
- In most cases, the main beams of the supporting structures are retained
- New transverse beams for supporting the brackets for the new chain support rollers are fastened to the existing main beams
- New impact beams are installed in the material feeding area
- The existing steel structures are equipped with a new tension shaft with tension wheel segments and a new drive shaft
- If the existing drive power is adequate for the new requirements, it can be retained
- New safeguards and measuring devices complement the retrofit





AUMUND headquarters in Rheinberg, Germany

The AUMUND Group offers efficient solutions for conveying and storage of bulk materials. A particular strength is the technologically mature and extremely reliable machinery for handling all kinds of bulk materials, even hot, abrasive or sticky. More than 18,000 installations worldwide substantiate the excellent reputation and good market position of the Group. The companies of the AUMUND Group are active in more than 140 countries with 15 locations all over the world and a global network of almost 100 representatives.

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