Apron Feeder

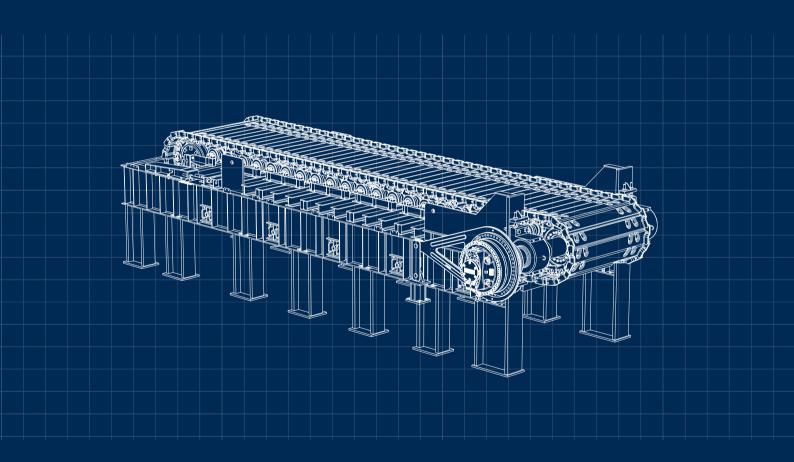
High-strength, heavy-duty productive processing





Flexibility of design

Brought about by our automated design, flexibility brings the capability of fast turnaround for late design changes and allows for integration into digital plant control systems for condition monitoring and control.



Background

Today's mines and quarries often run automatically, with longer hours and fewer personnel, and they require equipment that can reliably handle material day in and day out.

Design

Integrated guarding, infinitely adjustable feed rate, emergency stop systems and robust design ensure the operator's safety. Design features such as the forged main shaft with integrated hubs protect the drive chains against the miss alignment of friction hubs and sprockets, ensuring longer life and requiring less maintenance. Roller element bearings ensures a long, trouble free life for this robust machine.

In control

The newly redesigned Apron Feeders from FLSmidth easily handle high-impact feeds of heavy, coarse and sharp materials from trucks, surge piles, bins, and hoppers – as they provide a controlled flow of the material to the next stage in the process. Apron Feeders also can deliver volumetrically regulated feed metering to prevent material flooding.

Robust and reliable

These high-strength, heavy-duty feeders offer excellent protection against the introduction of material with sharp, abrasive and hard edges, such as run-of-mine material that is tipped directly from mining trucks. They are ideal for accepting mined material into a conveying system prior to any crushing or sizing.

Highest quality components

The FLSmidth Apron Feeder uses the highest quality componentry; such as cast manganese steel aprons, SALT chain components and forged alloy steel main shafts combined through state of the art design practices forged by decades of practical application to bring you reliable, high availability operation of a crucial element of your plant.



The results? Better throughput, higher production, lower maintenance, longer life, reduced operational costs and greater profits.

Ideal applications

FLSmidth Apron Feeders are ideal for a number of mineral processing applications, such as metals mining or quarrying, at the surface or underground. They efficiently feed material of different sizes and densities – from dry and abrasive to wet and sticky.

As an interface between mining trucks and the processing system, Apron Feeders provide steady, controlled feed for downstream processing – improving production and allowing for more predictable maintenance of processing equipment. They can be installed horizontally or at an incline, and placed at any point in a material handling set-up, before or after a primary crusher.

Specifications

Size	Chain Pitch (mm)	Sprocket PSD (mm)	Flight Width (mm)	Flight Thickness (mm)
D4	171.5	581.7	750 – 2,400	25
D6	203.2	689.4	1,200 – 2,700	40
D7	215.9	732.5	1,350 – 2,700	40
D8	228.6	847.3	1,500 – 2,700	40
D9	260.4	1046.9	1,800 – 3,150	45
D10	260.45	1046.9	2,100 – 3,600	50
D11	317.5	1176.8	2,700 – 3,600	60

Features and benefits

Features	Benefits	
Integrated guarding	Increased safety	
High-quality main forged shaft with integrated hub	Precise sprocket alignment resulting in long chain life	
Tractor-type SALT chain and roller components	Logistical and maintenance advantages	
Cast manganese steel pans	Optimized service life	
High-strength bump rail support system	Pan protection against operational damage	
Hydraulically assisted chain tension adjustment	Ease of maintenance	
Low-Speed High-Torque hydraulic drive with variable speed	Consistent full starting torque in high-load applications; handles starts, stops and heavy shockloads common to feeder operations	
Electro-mechanical drive is also an option	Lower cost option	
Onboard electrical safety and operational sensors	Increased safety and equipment protection	
Auto-lube system on the main shaft roller bearings	Assists with maintenance and ensures long bearing life	



The forged shaft with integrated hub allows for precise sprocket alignment



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