### **Apron Feeder Mining**

## What is the working principle of Apron Feeder Mining?

The **Apron Feeder Mining** is a conveying device that uses a closed, circulating chain as a traction member, and uses flat plates, corrugated plates, and trough or box-shaped components that are connected or overlapped as load-bearing components. The traction member and the load-bearing member form a chain plate combination device; the traction chain can be connected to the load-bearing member. The load-bearing member itself is supported and supported by rollers or rollers fixed on the bracket. The slab conveyor has no special requirements for material particle size, block shape, and working environment. The weight of a single material (piece) can reach 70-120kg, the conveyor length can reach 40-80 meters, and a 25° inclination angle is allowed. Slab conveyors are divided into light, medium, and heavy types.



# Mod:+86-13303710540 Email:doris@odifei.com.cn



What is the structure of the Apron Feeder Mining?



#### 1. Head drive device

It is composed of an electric motor, a reducer, a transmission device and a driving sprocket device. The power is transmitted to the main shaft by the driving device through a pair of sleeve roller sprockets, which in turn drives the slot plate to run. In order to meet the needs of different conveying speeds, the running speed of the slot plate can be changed by replacing the gear ratio of the driving sprocket. The driving sprocket device uses two sprockets with 6 teeth to drive two sheet-type traction chains and the slot plate to run along the guide rail.

#### 2. Tail wheel device

The redirection part of the chain plate of the machine, which consists of a tail wheel shaft, two tail wheels and bearings.

#### **3. Tensioning device**

The tensioning device adopts a spiral tensioning method to adjust the tightness of the traction chain.

#### 4. Chain plate part

It is composed of a traction chain and a slot plate. The traction chain adopts an impactresistant, stable and reliable sheet-type traction chain. A roller is installed in the middle of the inner chain plate, rolling on the track to reduce friction resistance and wear. The slot plate is fastened to the traction chain with bolts.

### 5. Frame

The large-scale cast coal slab conveyor for mining is composed of a head frame, a tail frame and an intermediate frame. It is welded with channel steel, angle steel and reinforcing steel plates. There are four tracks in the middle of the frame for rollers to run, which are made of light rail.

## What is the application of the Apron Feeder Mining?



## Parameter Table of the Apron Feeder Mining

Model		HB50	HB60	HB70	HB80	HB100
Chain plate width (mm)		500	600	700	800	1000
Conveying speed (m/min)		714				
Conveying capacity	(m³/h)	15-20	20-30	30-35	40-45	45-55
Conveying distance (m)		≤50 80				
Conveying material size	mm	120	160	200	240	300
Allowable tilt angle	≤30°	·				

#### **Picture of the Apron Feeder Mining**

