

Cat[®] Rock Flow System

CONTINUOUS HARD ROCK HAULAGE SYSTEM

Block Caving with Continuous Haulage

Block cave mining is a mass-mining technique used in many underground mines around the world. The innovative Cat[®] Rock Flow System – jointly developed with the Chilean mining company Codelco – greatly improves productivity by making use of continuous haulage technology as compared to the conventional use of LHD's.

The Cat Rock Flow System combines the usage of a Rock Feeder, a Rock Mover and an automation system to deliver mass mining production with improved safety and sustainability.

The Rock Feeder RF300 extracts ore from the drawpoint onto the Rock Mover (Hard Rock Chain Conveyor) by a hydraulically operated push plate. The Rock Mover RM900 is a dedicated hard rock production conveyor that collects ore from various drawpoints. An automation system (featuring remote operation from surface) allows draw and quality control and records operational data.

Rock Flow System Specifications

Rock Feeder (RF300)



Performance	300 tonnes/h	331 tons/h
Dimensions (L x W x H)	4300 x 2000 x 1050 mm	14.1 x 6.6 x 3.4 ft
Weight – Total RF300	22.0 tonnes	24.3 tons
Dozer Plate Cylinder		
Quantity	4	
Stroke	1350 mm	4.4 ft
Cycle Time	120 sec	
Pressure – Total	4021 kN	903,956 lbf
Pushing Cylinders		
Quantity	2	
Stroke	600 mm	2 ft
Pressure – Total	5147 kN	1,157,092 lbf
Weight – Pushing Device	5.8 tonnes	6.4 tons

Rock Mover (RM900)



Performance	900 tonnes/h	992 tons/h
Chain Speed	0.15 m/sec	29.5 fpm
Drive Power	2 x 75 kW	2 x 102 hp
Pan Width	1800 mm	5.9 ft
Pan Length	3000 mm	9.8 ft
Conveyor Length	77 m	252 ft
Chain Size	42 x 146 mm	1.65 x 5.75 in
Hydraulic Return Unit	Option 1: Manually adjustable unpowered Option 2: Fully activated	

Rock Flow System – Continuous Hard Rock Haulage System

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

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