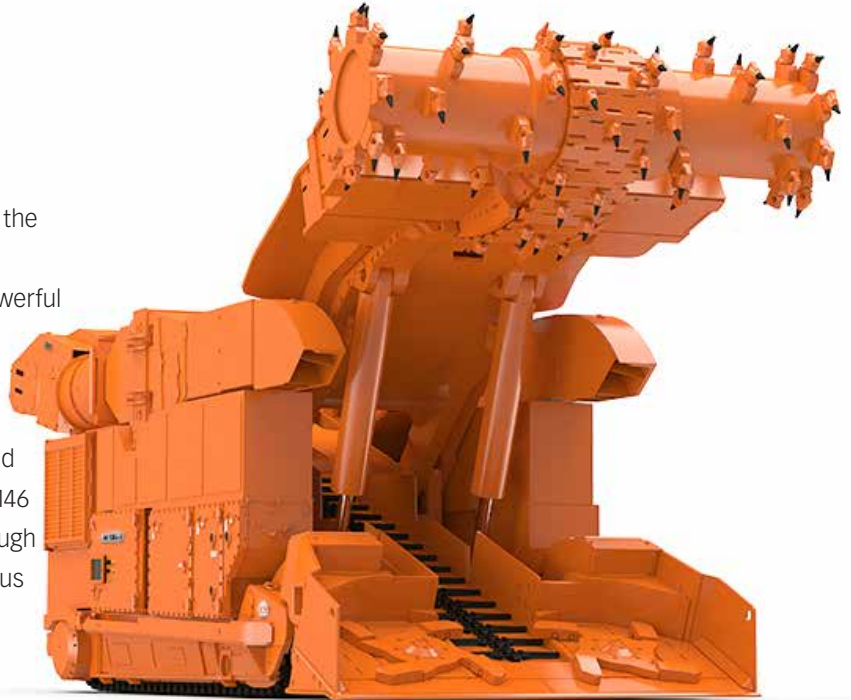




## 12HM46

Specifically designed to address the challenges of industrial minerals mining

For the industrial minerals market, Joy Global offers the 12HM (heavy-duty) series continuous miner. Within the series is the 12HM46, Joy's largest and most powerful drum type continuous miner, utilizing proven continuous miner components and designed to meet specific industrial minerals applications. With a machine mass of 154,000 kg (340,000 lbs) and a maximum cutting height of 6.0 m (20 ft), the 12HM46 has what it takes to increase production in these tough cutting environments. Earlier model 12HM continuous miners are successfully operating in trona, gypsum, potash and salt mines around the world.



### Features and benefits

- Increased machine mass improves cutting forces and stabilization during cutting
- Bolt-on and dual purpose rear stabilizer for hard cutting and service lifting
- All new traction drive system automatically adjusts for slower sump rates during hardest cutting
- Optional 6.0 m (20 ft) cutting height for maximum reach in high seams or with multiple pass bench mining\*
- Increased track length
  - Reduces ground pressure
  - More track oil capacity allows for hydraulic header tanks to be removed
- Bolted construction of major assemblies for ease of transport underground and quick machine reassembly
- Integrated outboard gathering head pivots are more robust and eliminate the need for torque arms
- Simplified electronics reduces the number of enclosures from six to two, and reduces cabling by 50% for simplified maintenance and fault finding
- New pivot geometries provide equal upshear and downshear capability

\*Applies to C model version only

## Optimize mine productivity with a matched continuous haulage system

The Joy Flexible Conveyor Train (FCT) is a truly continuous haulage system that eliminates any haulage-related bottlenecks from typical underground continuous miner operations. By removing this restriction, the FCT allows today's high production continuous miners to operate at their maximum capacity. The key to the effectiveness of the FCT is its patented flexible conveyor and traction system that permits the FCT and continuous miner to be operated as one single unit. The ability to continuously convey material along its length while simultaneously tramming to follow the continuous miner's every move, all with only one operator utilizing radio remote control, is a distinct advantage over all other types of haulage.

Each FCT system includes a DMU (Dynamic Move-Up) unit. The DMU is the interface between the FCT and the mine's panel belt. The FCT and DMU are available in two configurations. The side-discharge configuration is applicable to low seam heights and wide entries whereas the over-the-top (OTT) configuration is more suited to higher seams with restricted entry width. The OTT system is a self-advancing unit with remote-controlled panel belt move-ups. This system can also be designed for retreat mining. The side discharge design must be advanced using the continuous miner to pull up.



### 12HM46

Loading rate		21 - 38 ton/min	19 - 35 tonne/min
Cutter head diameter (optional)		58 in	1473 mm
Conveyor	Width	38 in	965 mm
	Depth	16 or 24 in	406 or 609 mm
	Chain pitch	3 1/4 in	82 mm
	Speed options	402 fpm 480 fpm	123 m/min 147 m/min
Crawler chain	Width	22 in	560 mm
	Pitch	7 1/4 in	184 mm
Cutter drums	Joy bit blocks, spacing	2 1/4 in	57 mm
Cutting width		13 ft 6 in - 15 ft	4115 - 4572 mm
Ground pressure		38.0 psi*	260 kPa*
Weight		340,000 lbs*	154,000 kg*
Maximum cutting height		236 in*	6000 mm*
Minimum cutting height		106 in*	2692 mm*
Basic chassis height		86 in*	2184 mm*
Ground clearance		12 in	305 mm
Tram speed	Slow	15 fpm	4.6 m/min
	Intermediate	30 fpm	9.1 m/min
	High	65 fpm	19.8 m/min
Gathering arm speed		45 or 54 rpm	45 or 54 rpm
Cutter speed		42 fpm	42 m/min
Bit tip speed		626 fpm	190.8 m/min

#### Motors (water cooled)

##### 2300/4160 Volt, 60 Hz

Cutter - 2	315/335 hp	235/250 kW
Pump - 1	94 hp	70 kW
Conveyor - 2	54 hp	40 kW
Gathering head - 2	67 hp	50 kW
Traction - 2	80 hp	60 kW
Total power	1126/1166 hp	840/870 kW

##### 3300 Volt, 50 Hz

Cutter - 2	442 hp	330 kW
Pump - 1	94 hp	70 kW
Conveyor - 2	54 hp	40 kW
Gathering head - 2	60 hp	45 kW
Traction - 2	80 hp	60 kW
Total power	1366 hp	1020 kW

\*Dimensions shown are for C model and may vary for other models or configurations

# JOYGLOBAL



Product designs, specifications and/or data in this document are provided for informational purposes only and are not warranties of any kind. Product designs and/or specifications may be changed at any time without notice. The only warranties that apply to sales of products and services are Joy Global's standard written warranties, which will be furnished upon request.

Joy Global, Joy, Montabert, P&H and related logos are trademarks of Joy Global Inc. or one of its affiliates.

© 2016 Joy Global Inc. or one of its affiliates. All rights reserved.

EN-12HM46SPEC01-0616-V2

joyglobal.com