

# Rotary Blasthole Drill

## Product Overview





At Joy Global, everything starts with a **singular focus** on mining.

Our unique business model in the mining industry, centered on a **direct service** approach, allows our customers to deal directly with our company representatives, in an intimacy model with no middleman or dealership operations intermediating discussions.

Our **experienced people** and high quality services are close to the mines to provide better decisions and solutions.

Joy Global is continually investing in research and development in order to deliver **technology** products that will revolutionize mining.

Our resources are committed to developing methods and solutions focused on higher productivity and reliability and safer operations.



# Rotary Blasthole Drills from Joy Global - Productive Solutions For All Mine Types

For mines looking to meet their drilling and blasting needs at the lowest cost per meter drilled, these powerful and reliable systems make P&H drills the best choice:

## Powerful Pulldown

P&H drills feature top-drive rack-and-pinion pulldown, which contributes to better machine availability due to fewer wearing components requiring maintenance. P&H's powerful and rugged rotary carriages are able to provide ample torque and bit loading to break through the toughest rock conditions in the world.

## Superior Propel

Built for maximum strength, P&H mainframes and crawler frames stand up to hard-rock mine conditions. Rugged crawlers and powerful hydrostatic propel drives deliver maneuverability, gradability and fast set-ups.

## Ample Air

A range of reliable, mining duty compressors are available to meet the specific bailing air needs for your mine. P&H drills utilize reverse helix screw compressors that provide years of reliable service.



## Rugged Masts

The drill mast is a structure subjected to high loads. P&H masts are designed using finite element analysis to achieve high cycle fatigue resistance and less downtime and costs repairing cracks. Constructed of common high strength alloy steel, the mast provides maximum rotary carriage and drill string support.



	250XPC	285XPC	320XPC
Hole Diameter	200 mm - 311 mm 7 7/8" - 12 1/4"	229 mm - 349 mm 9" - 13 3/4"	270 mm - 444 mm 10 5/8" - 17 1/2"
Maximum Bit Loading	40,823 kg 90,000 lbs	53,524 kg 118,000 lbs	68,038 kg 150,000 lbs
Maximum Single Pass Hole Depth	19.8 m 65 ft	19.8 m 65 ft	19.8 m / 21.3 m 65 ft / 70 ft
Air Compressor Volume (standard)	85 m³/min 3000 CFM	97 m³/min 3450 CFM	97 m³/min 3450 CFM
Maximum Torque	15,356 Nm 11,326 ft-lbs	17,626 Nm 13,000 ft-lbs	33,895 Nm 25,000 ft-lbs
Main Power Unit	Diesel	Diesel	Electric



## 250XPC

The P&H 250XPC provides up to 40,823 kg (90,000 lbs) of bit loading specifically designed for 250 and 270 mm diameter hole applications. This drill can be found drilling in coal, copper, and diamond mines around the world.



## 285XPC

The P&H 285XPC provides up to 53,524 kg (118,000 lbs) of bit loading specifically designed for 270 and 311 mm diameter hole applications. This drill is well suited for the majority of copper and iron applications.



## 320XPC

The P&H 320XPC is the preferred choice for large diameter blasthole drilling in extremely difficult rock conditions. The electric main power and carriage provides more than enough torque and bit loading to drill in these tough conditions.



# Operator Comfort & Safety

P&H drills are designed to provide operators with a safe, comfortable, and productive working environment. The drill operator’s cab includes the latest in ergonomic and safety improvements.

### Superior Visibility

The operator is provided with a clear, unobstructed view of the drilling area and areas surrounding the drill. Expansive windows and video cameras ensure that the operator is able to maintain complete situational awareness during drilling and propelling. The operator’s chair can swivel to face the direction of travel during propelling for safer repositioning.



### Safe Environment

A FOPS Level II certified structure and shatter resistant glass protects the operator from harsh mining conditions. The seat rests on an adjustable, air suspension and the cab rests on viscous mounts to provide isolation

to the operator from vibrations common to drilling.

### Productive Environment

Controls are located within easy reach of the operator to allow for maximum productivity.



# Ready for the Toughest Conditions

P&H drills provide reliable performance drilling holes through the toughest rocks no matter where the mine is located.

### Arctic Conditions

P&H drills operate reliably in some of the coldest environments on the planet. The drill is equipped with the necessary heaters and insulation to protect the operator and drill from temperatures that reach -40°C (-40°F).

### High Altitude

Joy Global can provide a reliable drilling platform that has the power and air

capacity to maximize productivity at altitudes up to 4572 m (15,000 ft).

### Weak Power Grids

Joy Global’s electric P&H 320XPC has a soft start transformer available that limits the impact of starting the drill on weak power grids by reducing the initial inrush current. This can reduce the overall power infrastructure costs for a mine and increase the life of the main motor and compressor.



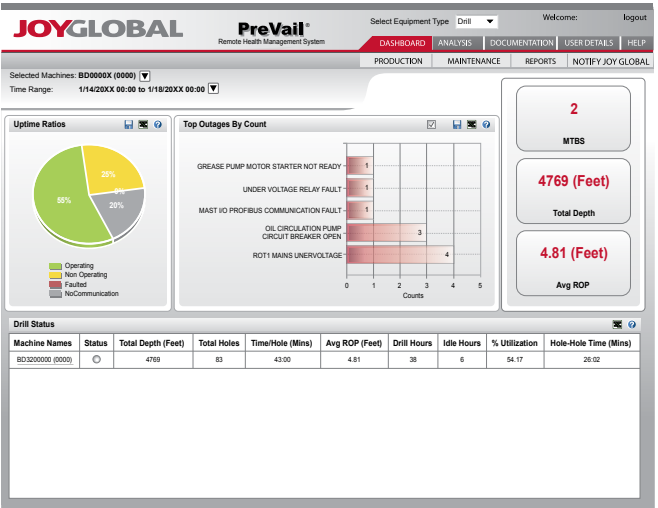
# Getting the Most Out of Your P&H Drills

### Prevail Remote Health Management System

The Prevail Remote Health Management (RHM) System helps mines by providing timely, efficient machine health and performance data. The Prevail RHM system taps into the powerful communication, command and control capabilities of the electrical control system, transforming the data and information it produces into more refined knowledge of great value to your operations and maintenance management teams. That knowledge is available in several forms including KPI (key performance indicator) dashboards, graphical analysis tools, predictive modeling and reporting tools.

With Prevail RHM installed on your P&H drills, you have access to:

- Increased asset performance visibility to help you determine when to intervene – and position you to minimize corrective action cost.
- Valuable risk management tools to help reduce troubleshooting time and mean time to recovery.
- Benchmarking of key performance indicators to make performance gaps more visible and set in motion corrective measures to maximize productivity.
- Operating practices analysis to allow for review and correction of operators not following best practices for optimal productivity.



### P&H Drill Training Simulator

Realistic virtual training simulators allow operators to learn a machine’s controls quickly and safely, as well as master the entire operator process from start to finish, before they ever step foot into a real-world piece of machinery. Training simulators lead to less machine downtime, fewer accidents, and a more efficient and productive operation.

The Series I Drill Training Simulator provides a real world feel in a very compact package. The simulator uses a 17” laptop, HDMI cable included for connection to a large screen monitor, and real world joystick controllers that clamp to almost any table top making it easy to set up in any environment.





# Joy Global Services

### Genuine P&H Parts

Joy Global offers a wide array of Genuine P&H replacement parts and upgrades for your mining equipment. As the OEM, we know every detail of your machine’s structural, mechanical and electrical systems – and the exact contribution each part makes. Our experience has been collected from millions of operating hours and allows us to continuously upgrade specifications and manufacturing methods, improving the performance and value of the Genuine P&H replacement parts. Enhancement packages are also available, and are continuously researched and developed, to extend the service life of your equipment, improve equipment productivity and reliability, and reduce your maintenance costs.

### Drill Consumables

Joy Global also provides a line of quality drill consumables, including drill pipe, top and bottom subs, shock subs, stabilizers and deck bushings.

### Encore Component Exchange Program

Joy Global’s Encore component exchange program provides a ready supply of like-new, remanufactured, Genuine P&H parts and components from regional warehouses for same

day or next day delivery. The Encore program is not the average rebuild or overhaul. Failed components are exchanged for totally remanufactured units, which are rebuilt to original equipment specifications, incorporating the latest design improvements, and warranted to one year or 6,000 hours.

### Life Cycle Management (LCM)

Partnering with you is now further strengthened thanks to agreements such as life cycle management contracts, cost per hour/meter, parts contracts, and parts alliances that unite the manufacturer and the miner in the pursuit of greater profitability through increased productivity of your mining equipment.

Fixed cost-per-hour contracts for P&H drills allow mines to optimize profits by budgeting specific amounts to maintain the equipment. When you know your maintenance costs will not exceed a set amount, you can reduce costs and minimize risks. Such arrangements enable Joy Global to perform proactive component change-outs, greatly reducing the risk of catastrophic failure.

Whether your OEM equipment support requirements are minimal or comprehensive, Joy Global tailors the Life Cycle Management (LCM) support

capabilities to your needs to help you meet your cost objectives and optimize profits.

### Training & Publications

Joy Global designs, develops, and delivers all of the drill-related Electrical, Mechanical, and Operator Technical Field Training for our customers. This includes all Instructor Led Training and eLearning, which provide our customers with the knowledge, skills and competencies that enable them to achieve the highest performance potential in their equipment.

### Application Engineering

Joy Global’s Application Engineering group is a team of resident experts in the mining industry that provides the input into P&H product functional specifications helping deliver a Total Cost of Ownership (TCO) Analysis. Some of the customer support activities promoted by the Application Engineering group are:

- Mine planning / economic analysis support
- Field application studies
- Product acceptance test/criterion
- Continuous improvement initiatives
- Machine – application best practice



Joy Global provides a comprehensive array of services and support to mining customers around the globe. Strategically located near every major mining center worldwide, there is a Joy Global office to assist you with most any service need you may have from welding and repairs, to training and audits, to upgrade installations and used equipment, and many others.

Joy Global listens to its customers to ensure maximum productivity of equipment, supply critical parts and services, and, most importantly, achieve the lowest possible cost of production throughout the life cycle of the equipment.

At Joy Global, we are proud to supply and support our P&H product line of exceptionally smart, rugged drilling rigs: easy to operate, easy to maintain, designed and built for exceptional performance value.



Contact your Joy Global service representative for more information on P&H drills or visit [www.joyglobal.com](http://www.joyglobal.com)



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