Draglines
Product Overview
Proven dragline performance

Based on the proven performance of the P&H 9020, P&H draglines raise the standard for large capacity draglines. They are built with customer inspired innovations that help optimize rugged, reliable and safe performance.

The advanced P&H brand Centurion electrical control system is standard on the P&H draglines. This system, which is the platform for nearly all P&H shovels, drills and draglines, enables long-term reduced operating costs through the maintenance and performance optimizing systems it supports. Powerful health monitoring tools are also available.

Furthermore, outstanding reliability, the hallmark of all P&H equipment, is built into the P&H dragline. Advanced structural analysis, CAD solids modeling and high-tech gearing software have been utilized to design a dragline that delivers consistent long-term productivity.

Joy Global and ABB:

Two leaders combine to deliver breakthrough productivity and performance

ABB is the global leader in drives with 40+ years of experience.

- ABB’s Direct Torque Control has the best dynamic performance in the industry
- Our AC drives are compact and modular
- Maintenance-friendly modules are easy-to-replace
- Motors designed and manufactured by Joy Global specifically for draglines
The P&H brand

Gradial tub

- A greater strength-to-weight ratio handles multi-directional loads, allowing increased reach and load capacity
- A gradial design provides multiple load paths for ground induced forces, eliminating weak points and extending the life of the tub
- An innovative, patented Verti-Shield welding process joins all intersecting plates with one continuous weld, resulting in minimal distortion and residual stresses
- A triangular pattern provides space for maintenance and inspection

Large diameter roller circle and raised roller path

- Large diameter roller circle provides low loading in the rail pad support structure and increases reliability of tub and deck structures
- Specially processed forged steel for long roller and rail life
- A raised roller path provides a larger space for inspection and maintenance of components
- Internal gear design of swing rack provides better load sharing between teeth
- Large diameter rack reduces gear and pinion loads

P&H draglines are known for their outstanding reliability, working 24/7 in some of the toughest environments around the world.
Boom and A-frame

- Wide flange chords allow for full penetration weld joints and ease of inspection from boom walkways
- Four chord design provides more stability
- A patented design with flatter bottom of boom improves visibility of boom point sheaves and balances axial working loads
- Saddle mounted boom point sheaves allow 16.5° of swivel to follow the pendulum lag of the hoist rope, increasing allowable swing speed
- The A-frame is optimized to reduce load forces and provide maximum rated suspended load

Electrical systems at a glance

- The Centurion electrical control system utilizes standard industry protocols and provides a platform that is scalable for future advancements
- Intelligent sensors and I/O devices to monitor and control the dragline enable machine health and reporting and performance enhancement systems
- Advanced communication and monitoring links to mine management and the maintenance crew reduce downtime
- A Centurion-based Graphical User Interface (GUI) in the operator cab and machinery house provide continuous feedback on all operating systems, empowering dragline operators to get peak performance from their machines
- The Centurion electrical control system utilizes finger-safe 24VDC for maximized safety
- Distributed I/O drops and fiber-optic cable linking drives, in addition to a supervisory controller, reduce wiring, resulting in reduced potential points of failure and simplified troubleshooting

P&H draglines are available in three models with boom length and capacity ranges configured to customers’ specific needs.

<table>
<thead>
<tr>
<th>Model</th>
<th>Boom length range (m/ft)</th>
<th>Bucket capacity range (m³/yd³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9010C</td>
<td>80-105 / 300-405</td>
<td>42-60 / 55-80</td>
</tr>
<tr>
<td>9020C</td>
<td>90-125 / 300-405</td>
<td>55-90 / 75-117</td>
</tr>
<tr>
<td>9020XPC</td>
<td>100-130 / 325-425</td>
<td>85-122 / 110-160</td>
</tr>
</tbody>
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Understanding our customers’ needs

P&H draglines benefit from a team of engineers and service personnel who understand your needs. Whether it is making advances in safety and on-time delivery for each dragline assembly, or engineering designs that better facilitate day-to-day maintenance and inspection, our goal is to deliver a product that is your best solution for increased production, reduced downtime and lowest cost-per-ton.