

ENGINEERING
TOMORROW

Danfoss

Product Brochure

Airflex® Floating Housing Brake

Built tough for rugged mining and heavy-duty industrial environments

VICKERS
by Danfoss

Reduce maintenance headaches, increase reliability

More than 50 years delivering innovative brake solutions

Airflex's Floating Housing Brake (FHB) is an air-cooled, spring-applied brake, specifically designed to maximize safety and machine uptime. The FHB's unique design increases the life of the friction lining and extends the time between friction changes. In addition, the elimination of rotor spline wear and periodic brake adjustments maximize dragline uptime while minimizing maintenance costs.

Traditional disc brakes require the brake to be disassembled for routine maintenance and friction replacements. Disassembly includes heating the hub, or gear, and involves a hydraulic press to complete the removal. Both scenarios can be dangerous and necessitate special permits and tools prior to beginning work.

The Airflex FHB utilizes the tapered shaft lock for easy installation and removal, as well as "quick change" friction, allowing the brake to remain assembled during maintenance activities. This increases hours of uptime.

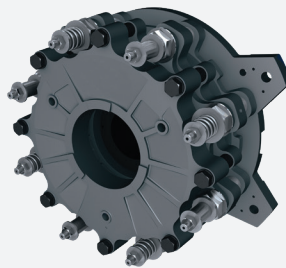
Features

- "Quick Change" friction lining pads reduce the time needed for replacement, while the 360-degree annular friction disc considerably extends life
- Taper Shaft Lock eliminates spline wear during freewheeling, maximizing service life and providing safer installation
- Compact design drastically decreases rotational inertia as compared to typical caliper brake systems, reducing thermal power loading
- Reduction of wear parts and frequent adjustments found in traditional dragline brakes decreases "nuisance" shutdowns

Size	Nr spring set	Dynamic Torque		Max RPM	Engaged length		Released length	
		lb-in	N-m		inch	mm	inch	mm
130 FHB	32	288,000	32,540	960	17.55	455.8	17.79	451.9
138 FHB	36	432,900	48,918	950	18.24	463.3	18.48	469.39

Typical applications

130 FHB



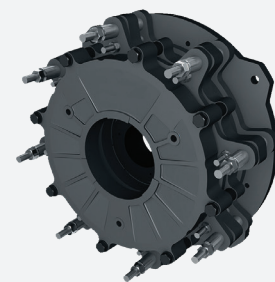
Draglines

- Hoist
- Drag
- Swing
- Propel/Walk

Motor Frame Compatible

- GE820/822
- P&H 8412D

138 FHB



Draglines

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Motor Frame Compatible

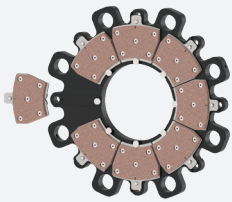
- GE824/826
- Siemens BI348

Safeguard your investment

Lower dragline maintenance costs

Maintenance costs add up quickly when brake linings, friction pads and the brake itself need frequent attention. The FHB's "quick change" friction lining reduces friction changeover time from three hours or more, to approximately 40 to 60 minutes.

Friction changes happen less often as a result of the 360-degree annular friction disc that extends wear life, requiring replacement once every five years. "Nuisance" shutdowns, as a result of spline wear, are eliminated due to the utilization of the tapered shaft lock.



Airflex Floating Housing Brakes have a 360-degree annular disc that cuts down on maintenance by extending the life of the friction pad.

Improve dragline reliability

Dependable dragline performance is key to your bottom line. The Airflex FHB is designed to be durable in harsh and rugged environments without frequent adjustments or replacement of wear parts and components. Make monthly shutdowns for greasing caliper arms, knuckle joints and pivot pins a thing of the past.

The FHB's compact design reduces rotational inertia, compared to typical caliper brake systems, reducing thermal power loading and yielding softer braking. Also, the FHB exhibits 20 percent less inertia on the hoist function and 6 to 7 percent less inertia on the swing function.

Reliability is essential in emergency situations. The FHB friction design and material are capable of absorbing 2,400 emergency stops before a friction replacement is needed.



Airflex Floating Housing Brakes have an exclusive Taper Shaft Lock that improves reliability.

Enhance safety for your most important asset

With so many potential hazards at a mine site, protecting your personnel is a top priority. The use of the Tapered Shaft Lock in the Airflex FHB makes brake installation and removal safer for your workers by eliminating risks associated with disassembly.



	Tapered shaft lock	Key and keyway	Spline	Taper lock bushing	Interference fit
Zero-Backlash connection	+	-	-	-	+
Eliminate keyway notch factor/allow smaller shafts	+	-	-	-	+
Install/Remove with simple hand tools	+	+	+	+	-
Permit infinite axial and angular timing	+	-	-	-	-
Transmit torque, bending and axial thrust	+	-	-	-	+

The right support for your operation commissioning and technical supervision services

Danfoss' factory-trained field service engineers provide technical guidance and oversight to ensure that installation, alignment and start-up for clutches and brakes meet your specifications

Hands-on operations and maintenance training

Hands-on operation and maintenance training is available. Working with your equipment, we instruct maintenance personnel on proper inspection, repair, and operation techniques for Airflex products.

Maintenance support services

Danfoss provides instruction in efficient maintenance and repair techniques and on-site support to help restore equipment to factory specifications and optimum performance.

Visit Danfoss Power Solutions Products for more information or to schedule a meeting with an Danfoss representative



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