



P89 Plus™ Air Disc Brakes

Enhanced Air Disc Brake Technology that Delivers Reliability and Reduced Maintenance for Maximum Uptime

Haldex

*Featuring Haldex
Calipers and Actuators*



P89
PLUS

SAF Holland
Group

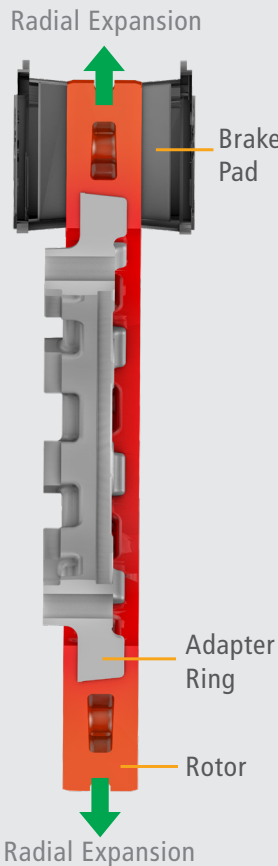
P89 PLUS™ AIR DISC BRAKE TECHNOLOGY

The P89 Plus™ air disc brake is globally recognized for its advanced braking efficiencies, reliability and maintenance free design.

Driving these benefits is the P89 Plus™ disc brake's advanced rotor and hub adapter design and manufacturing process. P89 Plus™ proprietary bi-metallic casting process mechanically joins two materials with unique properties into one P89 Plus™ rotor/hub assembly.

BI-METALLIC ROTOR AND HUB ADAPTER

To redirect and control high temperatures associated with vehicle braking, the rotor is designed with a series of ventilation channels. Unlike traditional rotors that experience extreme lateral deformation under high temperatures (umbrella effect), the P89 Plus™ rotor expands in a radial direction maintaining a flat and stable braking surface. As a result, harmful stress cracks, and premature brake pad failures are significantly reduced.



**PREMIUM PERFORMANCE,
MAINTENANCE FREE AIR DISC BRAKE
DESIGN WITH 7-YEAR WARRANTY**
(See warranty document XL-AS11003WC for details)

Advanced rotor and hub design

advanced rotor and hub adapter design with proprietary bi-metallic casting process that mechanically joins two materials with unique properties into one assembly.

Long life sealed bearings

long lasting, leak resistance that protects against extreme temperatures and corrosive chemicals.

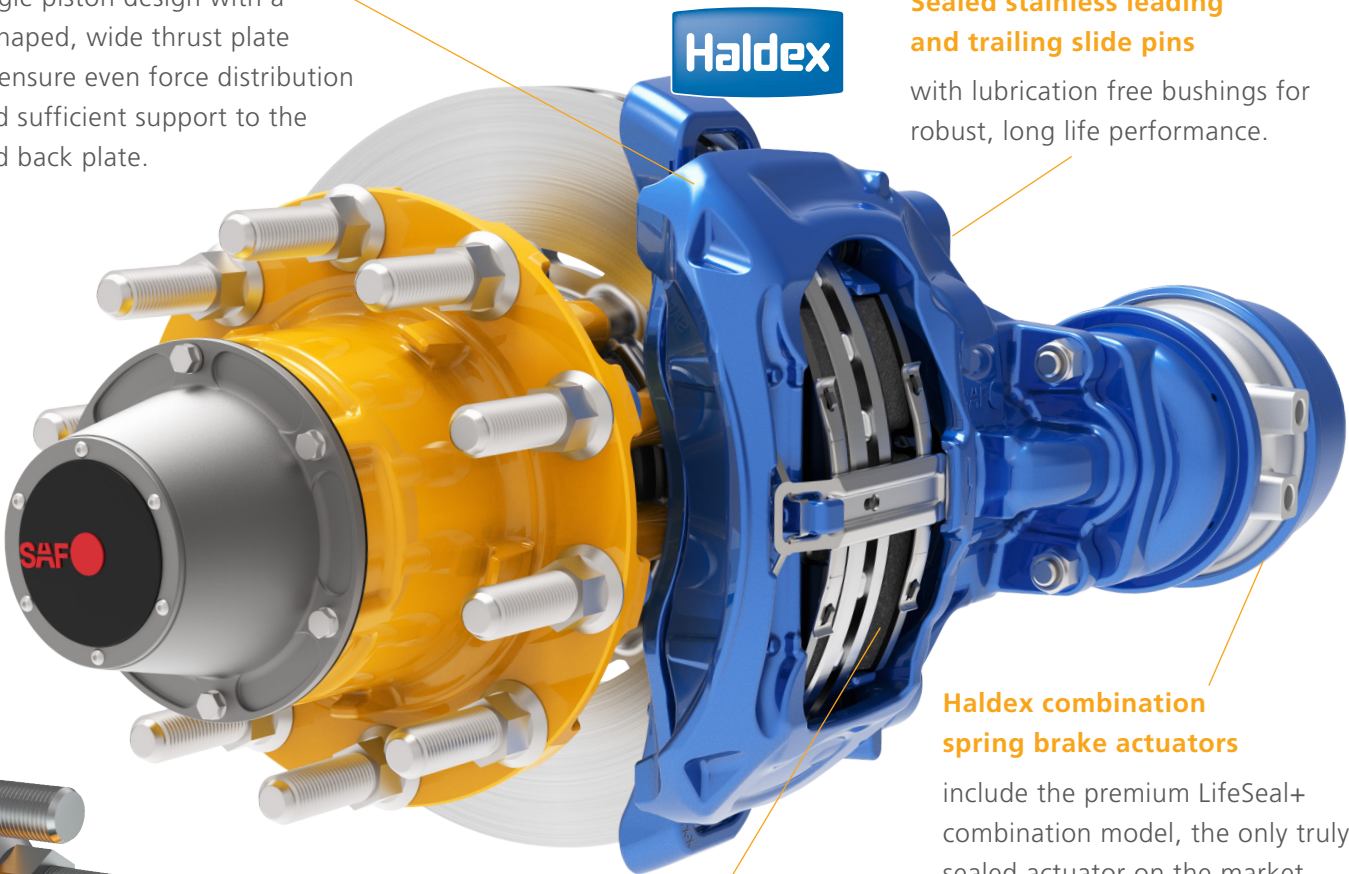


Heavy-duty parallel spindle wheel end

robust spindle design with premium, long life sealed bearings for enhanced performance, unmatched durability and reduced maintenance.

Haldex SBS2220H20 single piston caliper

is the industry's lightest weight single piston design with a T-shaped, wide thrust plate to ensure even force distribution and sufficient support to the pad back plate.



Sealed stainless leading and trailing slide pins

with lubrication free bushings for robust, long life performance.

Haldex combination spring brake actuators

include the premium LifeSeal+ combination model, the only truly sealed actuator on the market for extended life, and GoldSeal+ combination actuators which set the industry standard for reliable performance design features.

Semi-metallic disc brake pads

Copper-free pad material provides the optimum balance of stopping power and long wear life to extend service intervals.

Industry standard premium style spindle nut

provides precise bearing adjustment utilizing spindle nuts with North American standard right hand threads that prevents inadvertent back-offs when engaged and easily disengaged for simple removal.

OPTIONAL TIRE PILOT PLUS™

Spec Tire Pilot Plus™ for even more savings – enhanced tire life, fuel efficiency and uptime.



P89 PLUS™ AIR DISC BRAKE FLEET BENEFITS

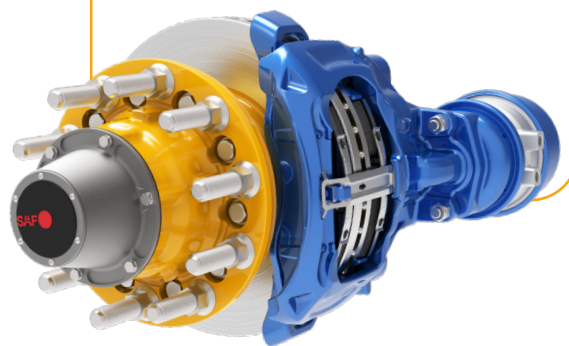
- Enhanced braking performance with shorter stopping distances versus drum brake systems
- Significantly longer brake pad life for extended service intervals
- North American design for reliable, robust performance
- Lowers risk for out-of-adjustment violations when compared to drum brakes
- Reduced maintenance and quick brake pad replacement for increased uptime
- INTEGRAL™ disc brake technology for superior braking performance
- 50 lbs. savings per tandem when compared to drum brake systems
- Designed to accept industry standard wear parts
- Industry leading 7-year warranty
(See XL-AS11003WC for details)



**ALSO AVAILABLE
OPTIONAL P89**

P89 air disc brake's offers longer lasting brakes, reduced maintenance and weight savings at a price point that is affordable for fleets of all sizes.

(See document XL-SA200515L-en-US for more details).



Optional Tire Pilot Plus™

The Tire Pilot™ Plus system is now electronically controlled for enhanced fuel economy and tire life.

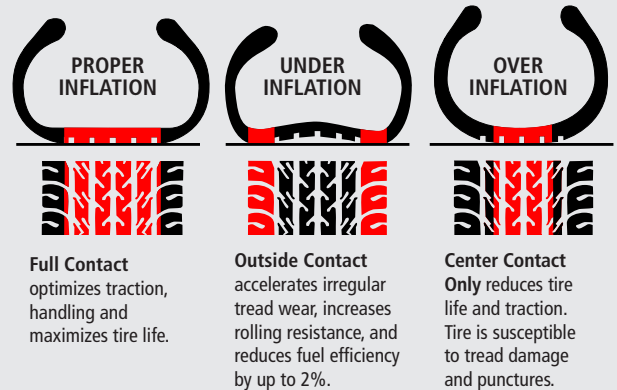


Optional Tire Pilot™ Plus not only controls pressure through inflation, but also maintains equal pressure across all wheels and features high pressure relief for overinflated tires. The robust design sets it apart from competitive designs with durable components.

- Automatically responds to small leaks caused by road hazards like nails and metal debris.
- System warning light alerts the driver ONLY when there is a need to immediately seek service.
- Diamond knurled hose connections at both hubcaps and tire valve ends allow installation and replacement without a wrench.
- The stainless steel air hose connections are ported through the sides of the hubcap and are protected between the integrated fins.
- High Pressure Relief feature maintains equal and proper pressure for all tires.
- Tire Pilot Plus can easily be specified on CBX and ULX Series suspensions, or is available as a simple retrofit on existing trailers.
- Can save over \$750 per year per trailer*.

* TMC RP235 reports the following – Tires underinflated by 10% will wear 9% to 16% faster than properly inflated tires. Underinflated tires add roll resistance that can reduce fuel economy by as much 2%. The average fleet loses \$750 per trailer each year due to improperly inflated tires.

Proper Air Pressure is Critical to Tire Life



P89 PLUS™ DISC BRAKES ARE THE IDEAL SOLUTION FOR THESE SAF SUSPENSIONS



CBX23 AeroBeam™
CBX23/CBX25
CBX25/30 CBX25/30u



CBX23u
CBX25u
CBX25/30y



CBX40 AeroBeam™
CBX40/CBX46/CBX50



ULX40



CBX69

Engineering Your Road to Success

The SAF-HOLLAND® Group is one of the leading international manufacturers of suspension-related assemblies and components for trailers, trucks and buses. Our innovative products increase the efficiency, safety and environmental friendliness of commercial vehicles, contribute to the success of our customers. With around 3,000 employees worldwide, we are at the forefront of shaping the future of the transportation industry.



Trailer Axles and
Suspension Systems



Coupling and Lifting
Technologies



Brake Solutions &
Air Valve Technologies



Suspensions and Components
for Commercial Vehicles



Suspensions for
Trucks and Buses



Trailer
Telematics



Coupling and Lifting
Technologies



Trailer Axles and
Suspensions Systems

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