

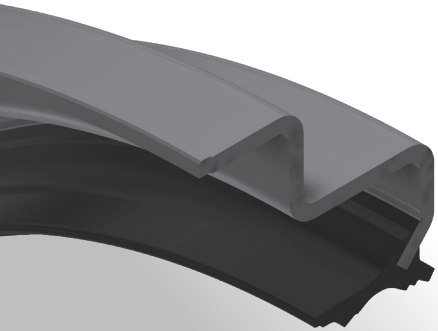
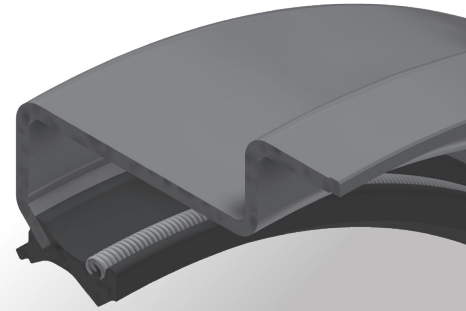
# BRENCO<sup>®</sup> Bearing Seal Options

Proven Performance. Industry Leader.

Amsted Rail is the industry leader for AAR-approved journal bearings. Available for our most popular bearings sizes, our seals have a track record of proven performance in some of the world's toughest operating environments.

## DDL<sup>®</sup> Bearing Seals

- Amsted Rail's standard seal design over the past 20 years
- Ideal for customers looking for reliability and less concerned about seal torque

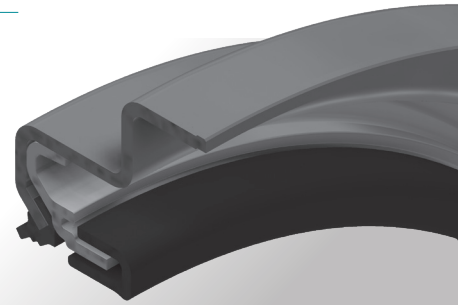


## ST-212 Bearing Seals

- Introduced in 1995
- Lower torque with little to no grease purge

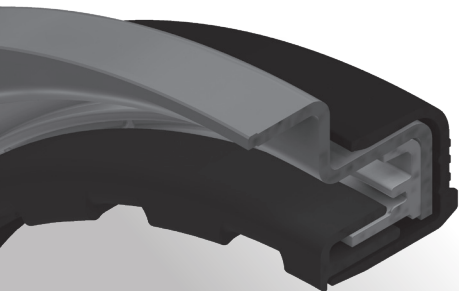
## Efficiency Plus<sup>®</sup> Bearing Seals

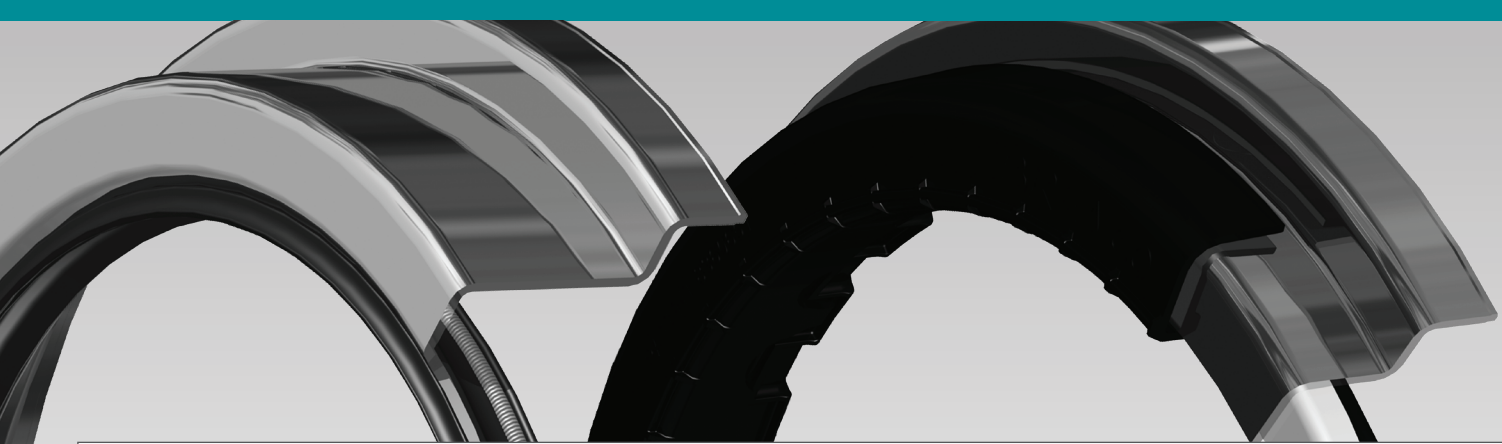
- Introduced in 2006
- Low-torque labyrinth seal design helps avoid grease purge
- Amsted Rail's lowest torque and temperature seal until the Tru-Guard



## Tru-Guard<sup>®</sup> Bearing Seals

- Proven railroad performance since 2010
- True non-contact, virtually zero-torque seal design
- Guards bearing from ingress of contaminants, lowers bearing operating temperature, and helps avoid grease purge

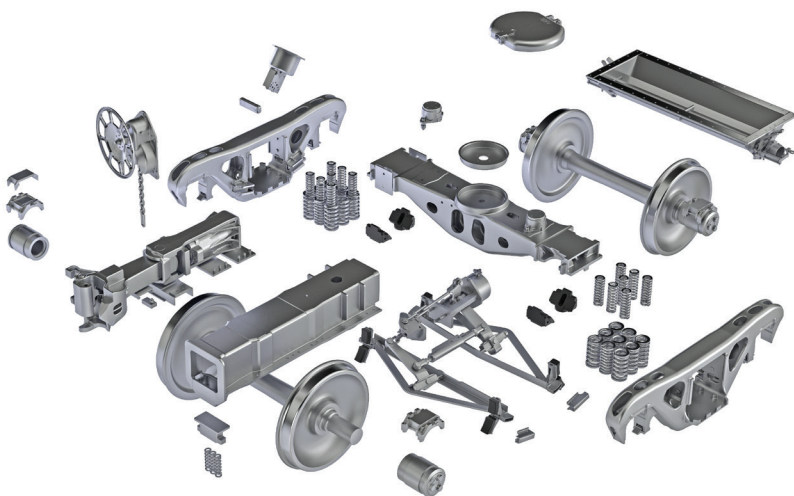




## Bearing Seal Performance Features

Seal Option		Performance Feature				
PN Code	Name	Grease Retention	Contaminant Exclusion	Seal Torque/Temperature		Non-Verified Removal Prevention
				During Break-In	After Break-In	
ST	Double Dust Lip (DDL®)	Good	Good	Acceptable	Acceptable	Acceptable
B	ST-212	Acceptable	Good	Acceptable	Good	Good
G	Efficiency Plus® (EP)	Exceptional	Acceptable	Good	Excellent	Good
K	Tru-Guard®	Exceptional	Exceptional	Exceptional	Exceptional	Exceptional

Amsted Rail, the global leader in fully integrated freight car systems for the heavy haul rail market.



Amsted Rail has been an industry leader in freight railroading for more than 100 years. Our experience, dedication and efficiency in servicing today's demanding heavy haul operations is unequaled as we keep railcars rolling in some of the world's toughest railroad environments. To learn more, visit [www.amstedrail.com](http://www.amstedrail.com).

