



# Automotive Vents

Information Sheet

SNAP-FIT SERIES: AVS 14, AVS 67, AVS 200

## For Electronic Power Steering (EPS) Systems

### PERFORMANCE-ENGINEERED FOR ELECTRONIC POWER STEERING (EPS) SYSTEMS

The performance benefits of GORE® Automotive Vents: Snap-Fit Series: AVS 14, AVS 67, AVS 200 have been proven in millions of automotive components, worldwide. Utilizing membrane technology which optimally balances venting performance with barrier protection, the Snap-Fit Series rapidly and continuously equalizes pressure differentials while effectively blocking ingress of damaging under-hood liquids, axle level liquids, and axle level solids. These mechanically rugged vents are also easy to integrate without requiring additional design considerations.

These characteristics are of particular value in Electronic Power Steering (EPS) applications. The durable yet lightweight and easy-to-install Snap-Fit Series extends the performance and reliability of the mechanical components while protecting critical electronics such as motors, torque sensors, and Electronic Power Packs (EPP).

### BETTER-PROTECTED COMPONENTS; BETTER-PERFORMING BOOTS

Whether in metal or polymer housings, GORE® Automotive Vents for Snap-Fit Installation provide distinct performance advantages. In all types of housings, venting is essential for rapid equalization of pressure. Unless relieved, these pressure differentials will repeatedly stress seals and boots. Over the vehicle life, repeated stress cycles will increase the potential for failure. Once a leak path is created, subsequent vacuum cycles can pull liquids or particulates into the housing, where they can degrade sensitive electronics or mechanical components.

In addition to preserving component service life, the Snap-Fit Series offers advantages for boot design. A vented EPS rack eliminates boot deformation which enables closer spacing of the steering rack to other chassis components. A definite advantage in today's component-dense automotive builds.



### REALIZE THE BENEFITS OF GORE® AUTOMOTIVE VENTS SNAP-FIT SERIES: AVS 14, AVS 67, AVS 200 FOR EPS APPLICATIONS

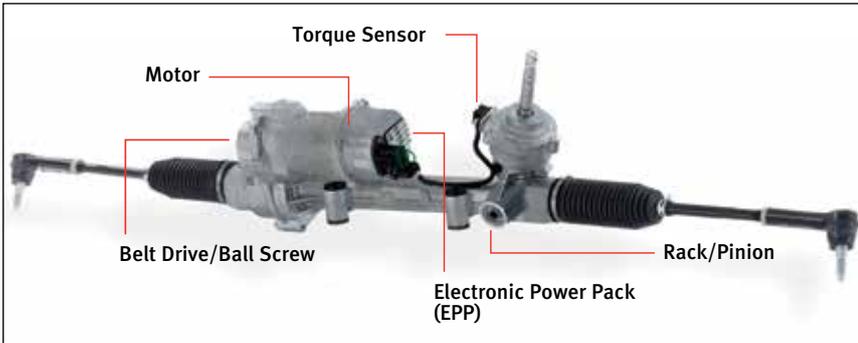
- **Enables reduced steering rack space requirements** by eliminating boot deformation
- **Reduces potential for boot wear** to help boots maintain their protective function
- **Protects electronics (motors, EPPs, sensors) from contaminants**, due to oleophobic and hydrophobic vent membrane
- **Reduces risk of housing seal stress/failure** by rapidly equalizing pressure differentials
- **Provides access** to Gore Application Engineers and technical resources, worldwide



# Automotive Vents

SNAP-FIT SERIES: AVS 14, AVS 67, AVS 200

## TYPICAL EPS RACK DRIVE



## VENT TO PREVENT BOOT DEFORMATION



Sealed systems “trap” pressure differentials that cause boot deformation.



Venting prevents deformation, preserving the boot’s structural integrity and reliably maintaining its “as-designed” protective function.

## SNAP-FIT SERIES: VENT INSTALLATION

The Snap-Fit Series is designed for fast, easy installation using either automated or manual assembly processes. A detailed Snap-Fit Series Installation and Inspection Guide is available at [gore.com](http://gore.com). It includes recommendations to optimize through-hole geometries, the installation process, vent placement, and more.

## OPTIMAL VENT POSITIONING IN EPS APPLICATIONS

EPS applications that contain grease lubricant on internal components require special consideration for vent placement. Please contact Gore’s application engineers to discuss your application and to ensure optimal vent performance.



### INTERNATIONAL CONTACTS

Australia	+61 2 9473 6800	Mexico	+52 81 8288 1281
Benelux	+49 89 4612 2211	Scandinavia	+46 31 706 7800
China	+86 21 5172 8299	Singapore	+65 6733 2882
France	+33 1 5695 6565	South America	+55 11 5502 7800
Germany	+49 89 4612 2211	Spain	+34 93 480 6900
India	+91 22 6768 7000	Taiwan	+886 2 2173 7799
Italy	+39 045 6209 240	United Kingdom	+44 1506 460123
Japan	+81 3 6746 2572	USA	+1 410 506 7812
Korea	+82 2 393 3411		

**FOR INDUSTRIAL USE ONLY.** Not for use in food, drug, cosmetic or medical device manufacturing, processing, or packaging operations.

All technical information and advice given here is based on Gore’s previous experiences and/or test results. Gore gives this information to the best of its knowledge, but assumes no legal responsibility. Customers are asked to check the suitability and usability in the specific application, since the performance of the product can only be judged when all necessary operating data are available. The above information is subject to change and is not to be used for specification purposes.

Gore’s terms and conditions of sale apply to the sale of the products by Gore.  
W. L. Gore & Associates, Inc. is certified according to ISO TS 16949, ISO 9001 and ISO 14001 standards.  
W. L. Gore & Associates GmbH is certified according to ISO TS 16949 and ISO 9001 standards.  
GORE and designs are trademarks of W. L. Gore & Associates.

© 2015 W. L. Gore & Associates GmbH

### W. L. Gore & Associates GmbH

Hermann-Oberth-Str. 26 • 85640 Putzbrunn • Germany  
Tel.: +49 89 4612 2211 • Fax: +49 89 4612 2302  
E-mail: [ipd-deutschland@wlgore.com](mailto:ipd-deutschland@wlgore.com)

[gore.com/autovents](http://gore.com/autovents)

