

# EMISSION CONTROL PROGRAM

1

Standard® offers more than 1,250 EVAP components for import and domestic applications

2

Standard® also offers over 600 crankcase and 980 exhaust gas recirculation (EGR) emission components

3

Standard® Emission Control components are precision engineered and tested for maximum durability and OE-matching performance

**What's in your box?™  
Here's what's in ours.**



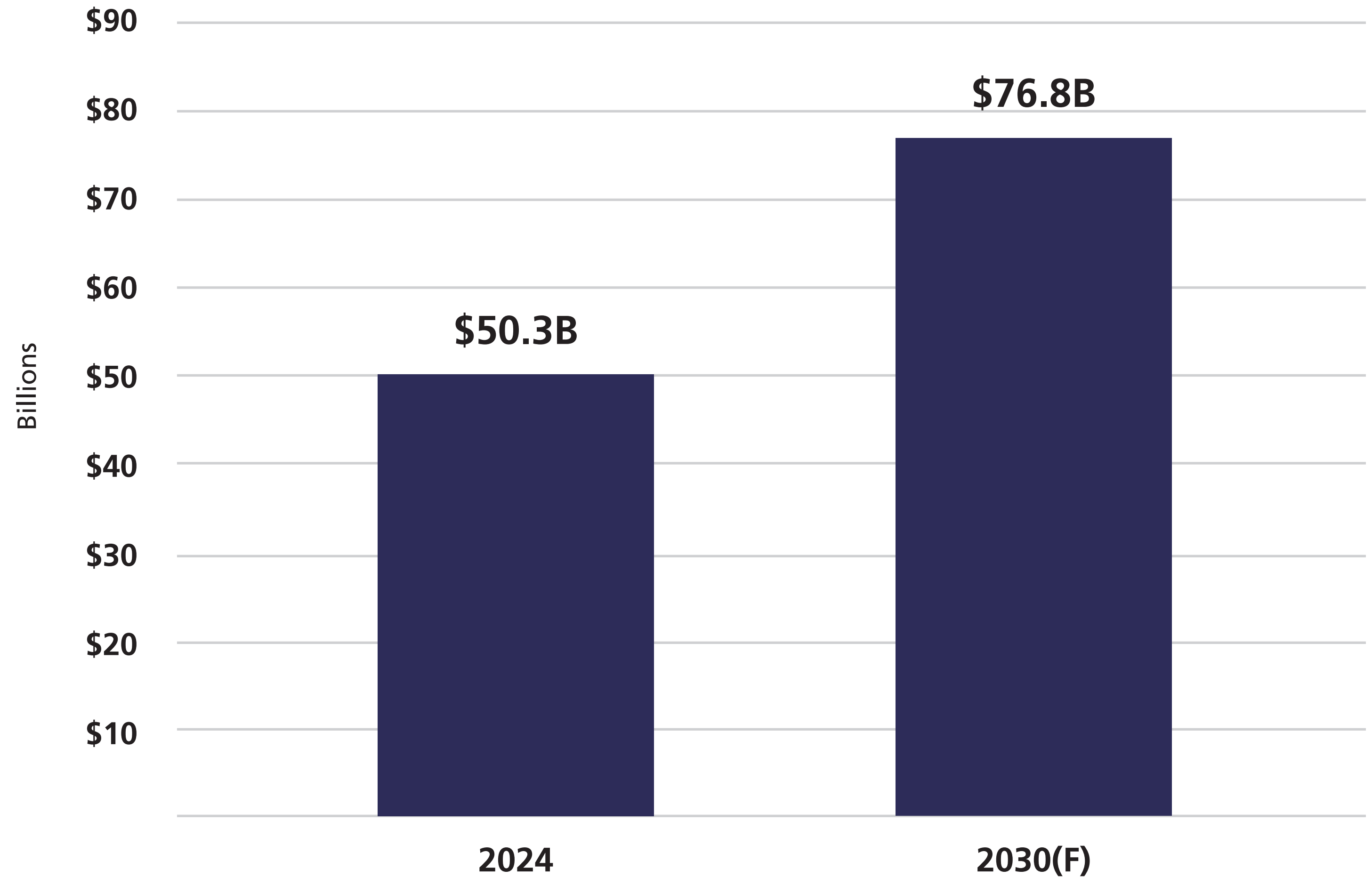
# Growing Market

Vehicles on the road today are equipped with multiple emission systems that will require both service and maintenance over their lifetimes. To meet ever-tightening emission standards, vehicle manufacturers have gone to great lengths to make internal combustion engines cleaner and more efficient than ever before. These complex systems and additional components will create more and more service opportunities in coming years.

## Key Growth Categories:

- EGR Valves
- PCV Valves
- Air Pumps
- Fuel Vapor Canisters

## Automotive Emissions Market



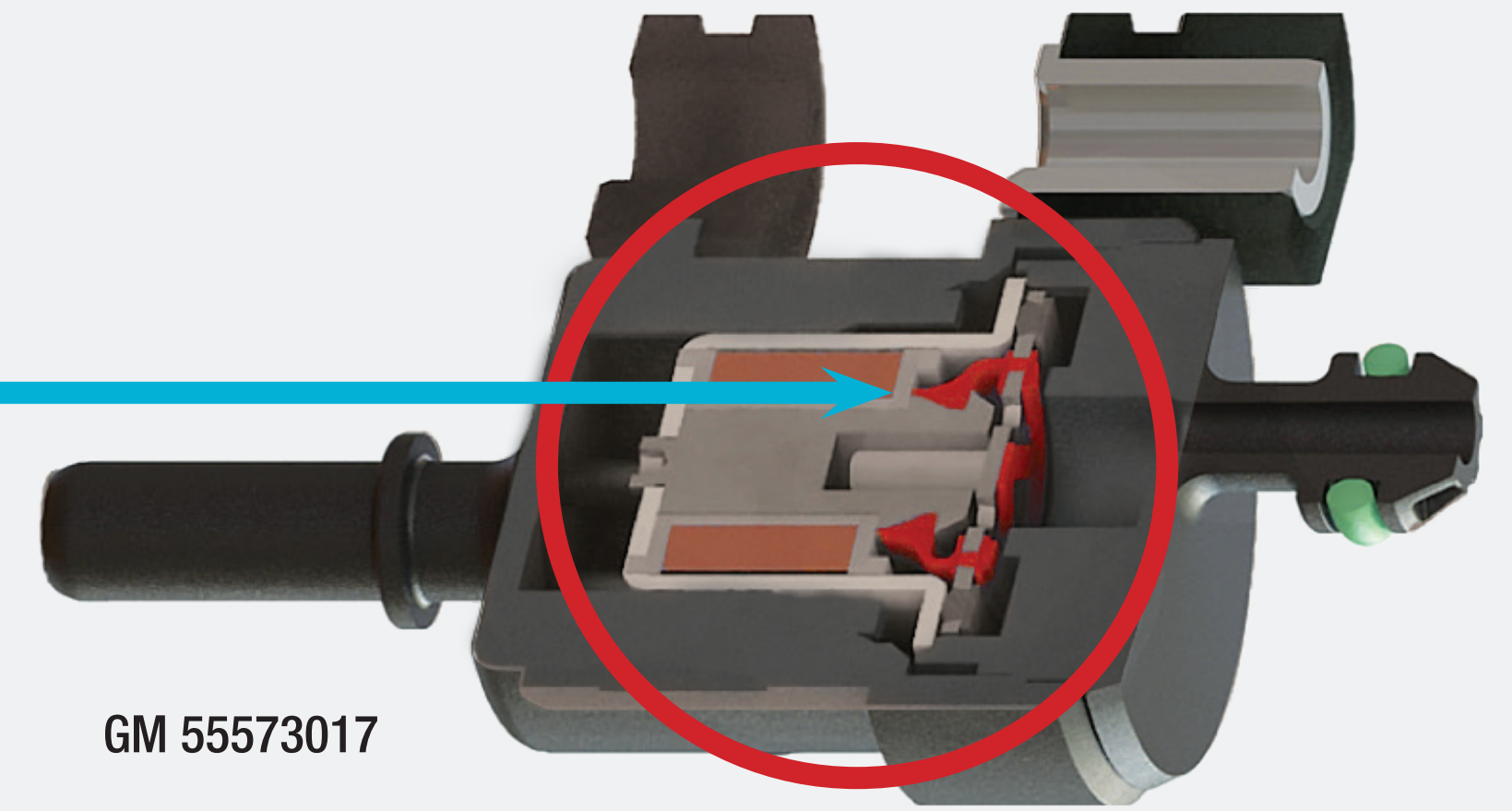
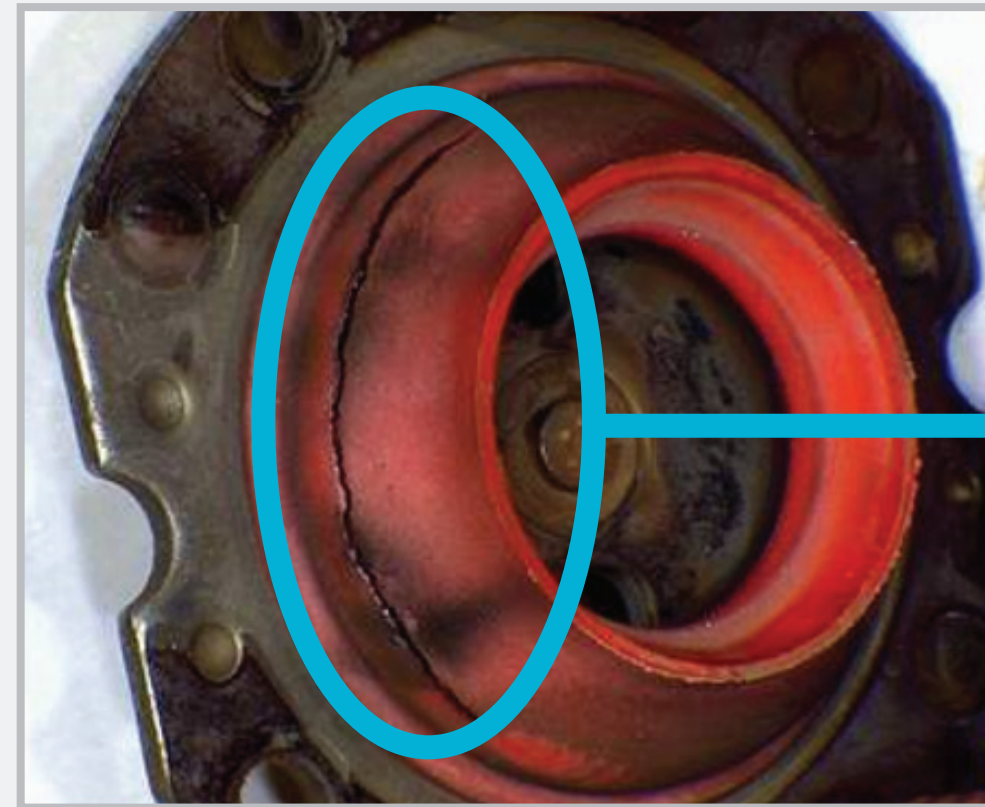
Source: Verified Market Reports, 2024



# Opportunities

The purge valves in many popular GM 4- and 6-cylinder vehicles are known for high failure rates. We engineered a more robust component, addressing the weak points in the OE design while maintaining the correct operating specifications of the original.

## OE Problem: The plunger assembly cracks, causing a system leak



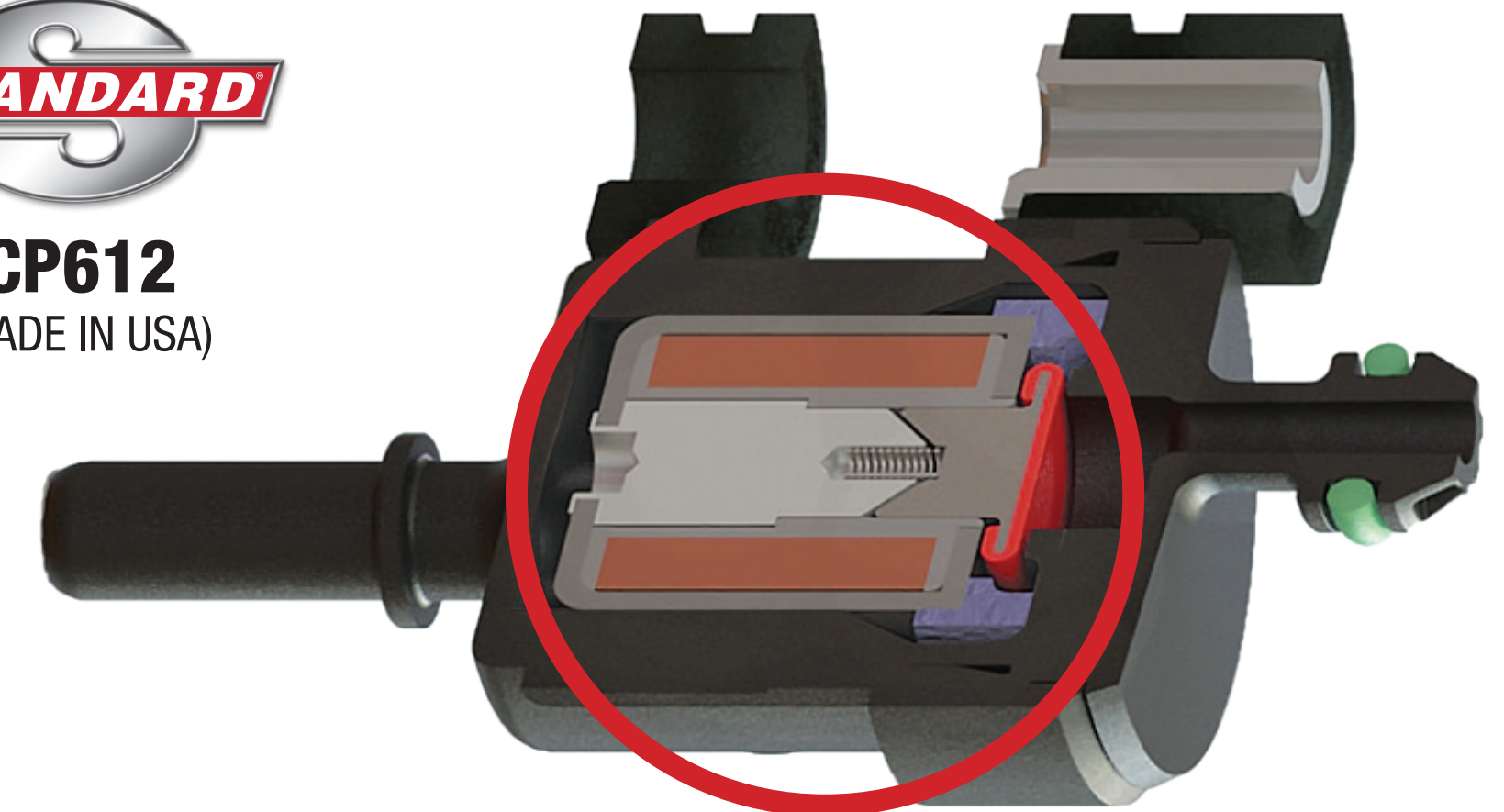
GM 55573017

## Standard® Solution: Updated plunger design improves durability

- A cylindrical design was incorporated and a bobbin was added to help maintain correct alignment
- By keeping the plunger in alignment, wear on the seal is reduced, resulting in a longer-lasting component



**CP612**  
(MADE IN USA)



### Special Coverage N23295300 Evaporative Emissions Purge Valve



Release Date: June 2023 Revision: 00

Attention: This Special Coverage can be seen in the Applicable Warranties section in Investigate Vehicle History (IVH).

Make	Model	Model Year		RPO	Description
		From	To		
Buick	Enclave	2019	2019	LFY	ENGINE-GAS, 6 CYL, V6, 3.6L, SIDI, DOHC, ATSS, GEN 1+
Buick	Encore	2020	2020	LUV	ENGINE-GAS, 4 CYL, 1.4L, MFI, DOHC, TURBO, VVT, ALUM, GME, E85 MAX
Chevrolet	Sonic	2020	2020	LUV	ENGINE-GAS, 4 CYL, 1.4L, MFI, DOHC, TURBO, VVT, ALUM, GME, E85 MAX
Chevrolet	Traverse	2019	2019	LFY	ENGINE-GAS, 6 CYL, V6, 3.6L, SIDI, DOHC, ATSS, GEN 1+
Chevrolet	Trax	2020	2020	LUV	ENGINE-GAS, 4 CYL, 1.4L, MFI, DOHC, TURBO, VVT, ALUM, GME, E85 MAX

Involved vehicles are identified on the Applicable Warranties section in GM Global Warranty Management system. This site should always be checked to confirm vehicle involvement prior to beginning any required inspections and/or repairs.

**Condition** Certain 2019 model year Buick Enclave and Chevrolet Traverse vehicles equipped with a 3.6L engine (RPO LFY), and certain 2020 model year Buick Encore and Chevrolet Sonic / Trax vehicles equipped with a 1.4L engine (RPO LUV), may have a condition that could cause the evaporative emissions purge valve to not fully close. If this condition occurs, the engine could run rough, hesitate, or stall at idle speeds. Additionally, the Malfunction Indicator Light (Check Engine Light) would illuminate, and a diagnostic trouble code would be set.

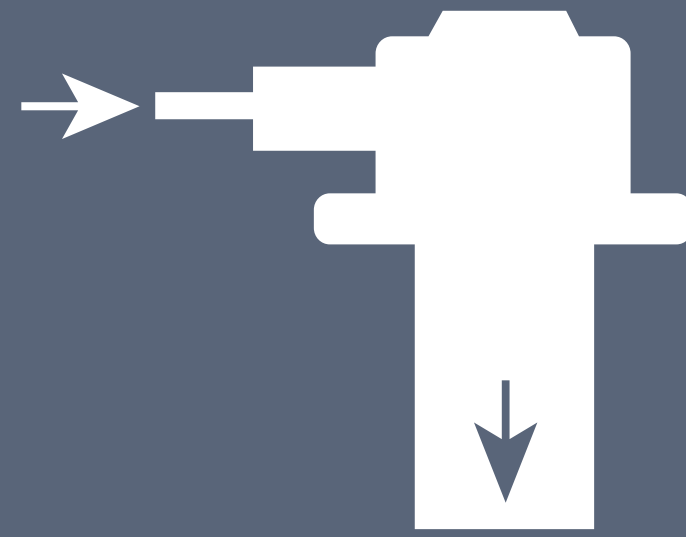
GM Service Bulletin N23295300



Emission Control Program

StandardBrand.com

# Impact on Engine Systems



An EGR valve that is stuck open allows exhaust gases into the intake passage, resulting in low vacuum and a rough running condition



A stuck closed vent valve (normally open to the atmosphere) will make the fuel tank difficult to refill due to vapors being forced out of the filler neck, instead of going through the canister as intended



A stuck open purge valve (normally closed) will allow excessive vapors to flow into the engine, creating a "flooded" situation and the vehicle being hard to start

# What's New

## EVAP Components

Standard's industry-leading, 1,250+ SKU EVAP emission catalog covers millions of repair opportunities for vehicles on the road today. Installing high-quality EVAP components is extremely important. Low-quality parts may leak and fail inspection or not integrate with the existing system properly. All Standard® EVAP components are extensively tested so technicians can be confident they are installing the highest-quality parts.

For the most recent applications, check the online catalog at [StandardBrand.com](https://StandardBrand.com).



### CP124

Canister Purge Solenoid  
Ford SUVs  
(2025-20) VIO: 900K



### CP3755

Fuel Vapor Canister  
Toyota Trucks  
(2021-14) VIO: 931K



### LDP94

Fuel Vapor Leak Detection Pump  
Jeep / Dodge SUVs  
(2018-16) VIO: 782K



### CP122

Vapor Canister Purge Pump  
GM Cars, Trucks & SUVs  
(2025-19) VIO: 1.6M



# What's New

## Crankcase Emission Components

Standard's already 600+ part crankcase emission catalog grows each year to provide technicians with a range of high-quality repair solutions. Key features of our Crankcase Breather Hoses and PCV Valves include OE-matched fittings and high-quality seals for a quick repair and long-term reliability.

For the most recent applications, check the online catalog at [StandardBrand.com](https://StandardBrand.com).



### **EOS58**

Engine Oil Separator  
Ford SUVs  
(2024-20) VIO: 900K



### **V667**

PCV Valve  
Fiat / Jeep / RAM SUVs & Vans  
(2023-18) VIO: 1.2M



### **VH103**

Vacuum Hose  
Ford / Lincoln Trucks, SUVs & Vans  
(2023-14) VIO: 1.4M



### **EOS16**

Engine Oil Separator  
GM Trucks  
(2023-17) VIO: 1M



# What's New

## EGR Components

EGR systems are constantly evolving to help reduce vehicle emissions. Standard's 980 EGR components provide repair solutions today and into the future. From EGR valves and coolers to gaskets and solenoids, Standard® has what you need for your customers' vehicles.

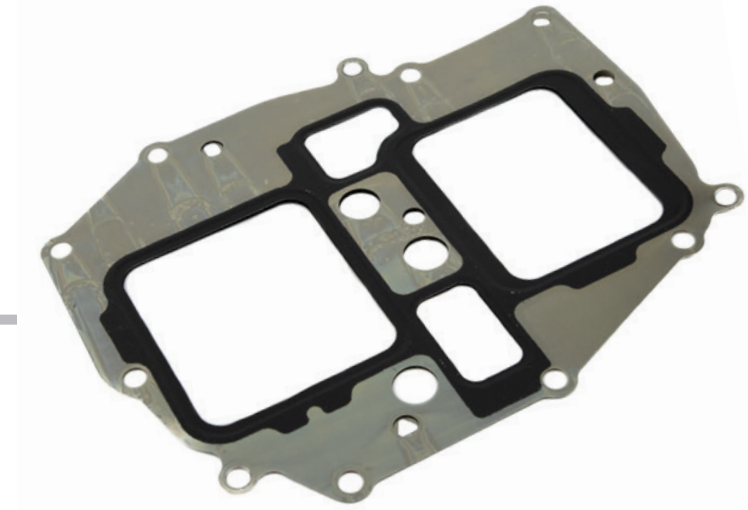
For the most recent applications, check the online catalog at [StandardBrand.com](https://StandardBrand.com).



### **EGV1330**

EGR Valve

GM Trucks & SUVs  
(2024-20) VIO: 1.9M



### **VG404**

EGR Cooler Gasket

Ford Trucks  
(2024-11) VIO: 1.8M



### **ETB133**

EGR Tube

Subaru Cars & SUVs  
(2023-17) VIO: 976K



### **ECK37**

EGR Cooler

Ford / Lincoln Trucks & SUVs  
(2023-22) VIO: 1.1M



# What's New

## Vacuum Pumps

Vacuum pumps provide multiple key components with the vacuum they require to operate correctly. Power brake system boosters are a critical component that requires a vacuum pump to provide adequate braking force. Vacuum pumps are also required for emission solenoids and turbocharger wastegate actuators.

### Easy Installation

Direct-fit OE replacement ensures ease of install

### Prevents Leaks

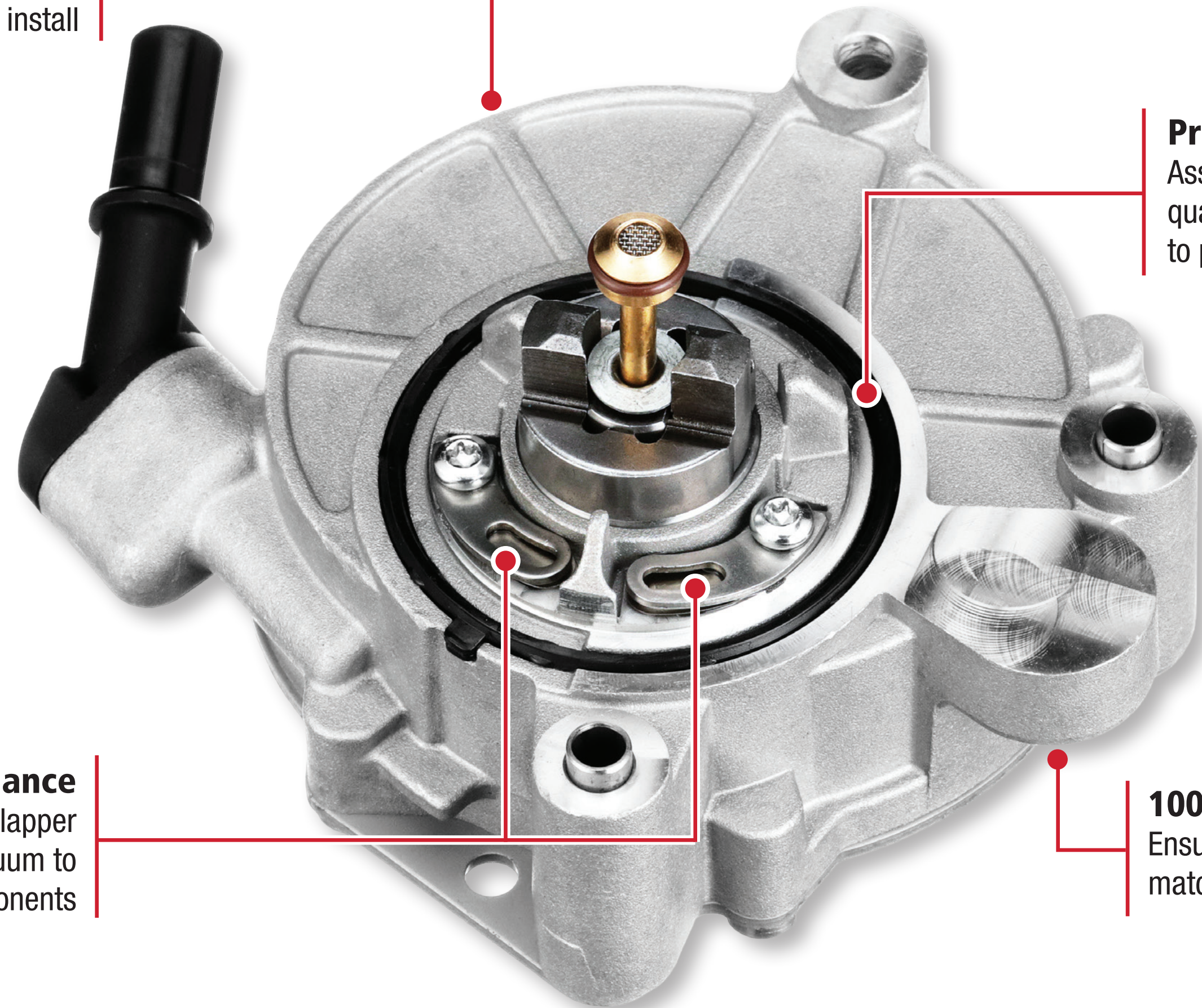
Assembled with high-quality O-rings and seals to prevent air and oil leaks

### Restores Performance

Precision-engineered flapper valve provides vacuum to critical components

### 100% Tested

Ensures all functions match OE specification



### VCP123

Ford / Lincoln  
Trucks, SUVs & Vans  
(2023-13)





# EVAP Components

Evaporative Emission Control Systems, also referred to as 'EVAP,' are responsible for preventing fuel vapors from escaping into the atmosphere from a vehicle's fuel system.

Standard's EVAP components are designed to seamlessly integrate with the vehicle's computer and existing emission system, ensuring this vital system operates as intended.



## Canister Purge Valves

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Manufactured using high-temperature-resistant synthetic materials to maximize service life while minimizing the effect of underhood temperatures

120+ SKUs / 84M VIO



## Canister Vent Valves

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Extensive testing ensures performance and reliability in extreme environments

25 SKUs / 20M VIO



## Canister Vent Solenoids

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Our proprietary molding technology provides superior resistance to harsh environmental conditions and drastically reduces the possibility of leaks

145+ SKUs / 151M VIO



## Canister Purge Solenoids

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Designed to match OE specifications and seamlessly integrate with the vehicle's EVAP system

300+ SKUs / 202M VIO



# EVAP Components

Standard® utilizes the highest-quality material and manufacturing processes to ensure that all EVAP components meet OE specifications and operation requirements.

Our engineers design every part so they can easily be installed and trusted by technicians to function exactly as the OE manufacturer intended.



## **Fuel Vapor Canisters**

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Manufactured with the highest-grade materials for prolonged life and superior performance

600+ SKUs / 247M VIO



## **Fuel Vapor Leak Detection Pumps**

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Direct-fit OE replacements accurately detect evaporative leaks with the utilization of engine vacuum

70+ SKUs / 48M VIO



## **ESIM (Evaporative System Integrity Module)**

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Designed and tested to accurately detect pressure change and provide corresponding voltage information to the vehicle's PCM

5 SKUs / 23M VIO

\*ESIMs are a type of leak detection pump designed by Chrysler. These components use two weights, a diaphragm, and a switch to detect pressure differences across a variety of conditions.



# Top Movers: EVAP Components

## IMPORT APPLICATIONS



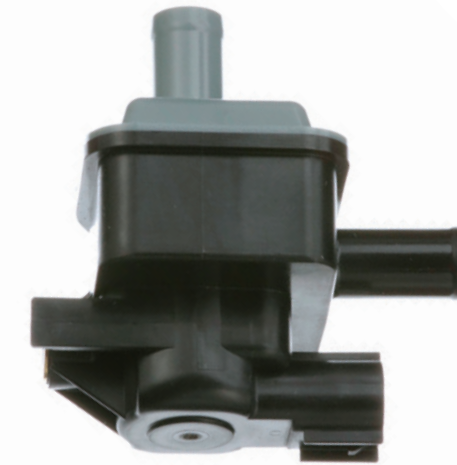
**CVS67**

Canister Vent Solenoid  
Nissan / Infiniti  
Cars, Trucks, SUVs & Vans  
(2024-03)



**CP620**

Canister Purge Solenoid  
Toyota / Lexus / Scion / Mazda  
Cars, Trucks & SUVs  
(2022-06)



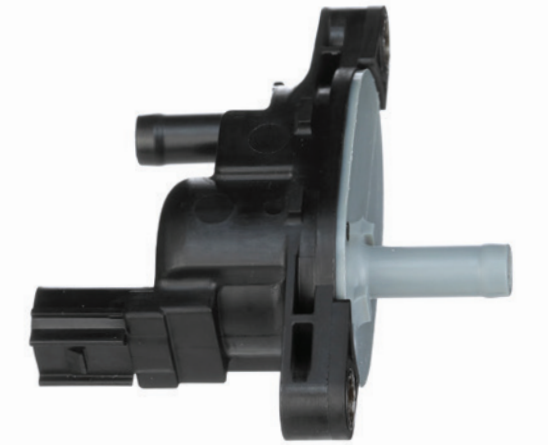
**CP808**

Canister Purge Solenoid  
Toyota / Lexus  
Cars, Trucks & SUVs  
(2023-14)



**LDP67**

Fuel Vapor Leak Detection Pump  
Toyota / Suzuki  
Cars, Trucks & SUVs  
(2014-04)



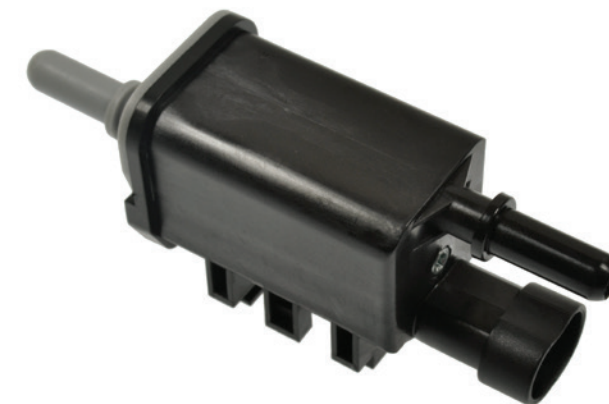
**CP638**

Canister Purge Solenoid  
Honda / Acura  
Cars, Trucks & SUVs  
(2017-06)



**CP612**

Canister Purge Solenoid  
GM  
Cars, Trucks & SUVs  
(2020-09)



**CP471**

Canister Purge Solenoid  
GM  
Cars, Trucks, SUVs & Vans  
(2020-03)



**CP758**

Canister Purge Solenoid  
Ford / Lincoln  
Cars, Trucks, SUVs & Vans  
(2021-11)



**CP470**

Canister Purge Solenoid  
GM  
Cars, Trucks, SUVs & Vans  
(2014-04)



**CP781**

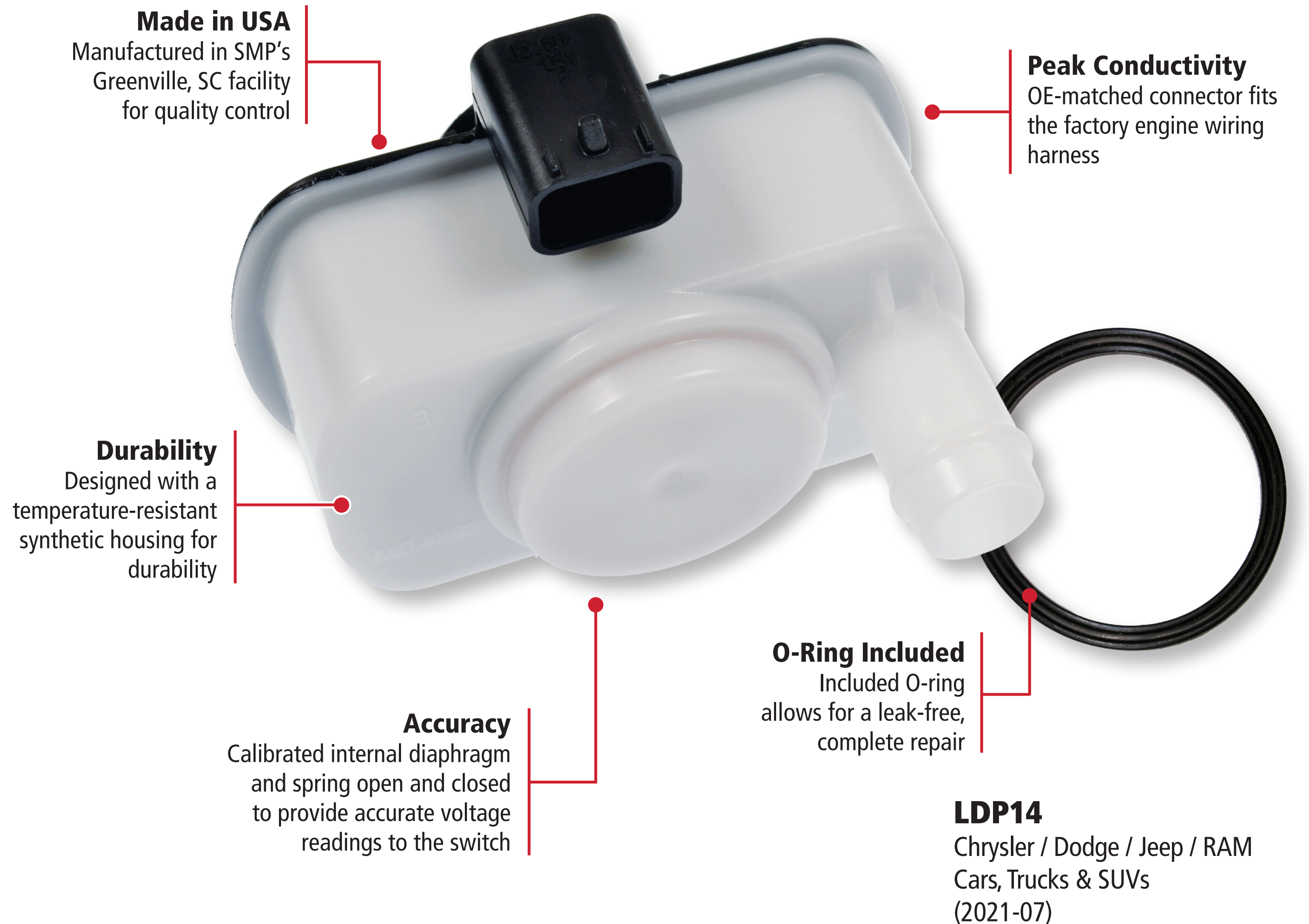
Canister Purge Valve  
GM  
Cars & SUVs  
(2021-11)



# Precision Engineering

Evaporative System Integrity Modules (ESIM), also known as Evaporative System Integrity Monitors, are a key EVAP component on many late-model Chrysler, Dodge, Jeep, RAM and Fiat vehicles. Unlike previous leak detection systems, ESIMs do not contain a solenoid. Instead, ESIMs use two weights, a diaphragm and a switch to detect pressure differences across a variety of conditions.

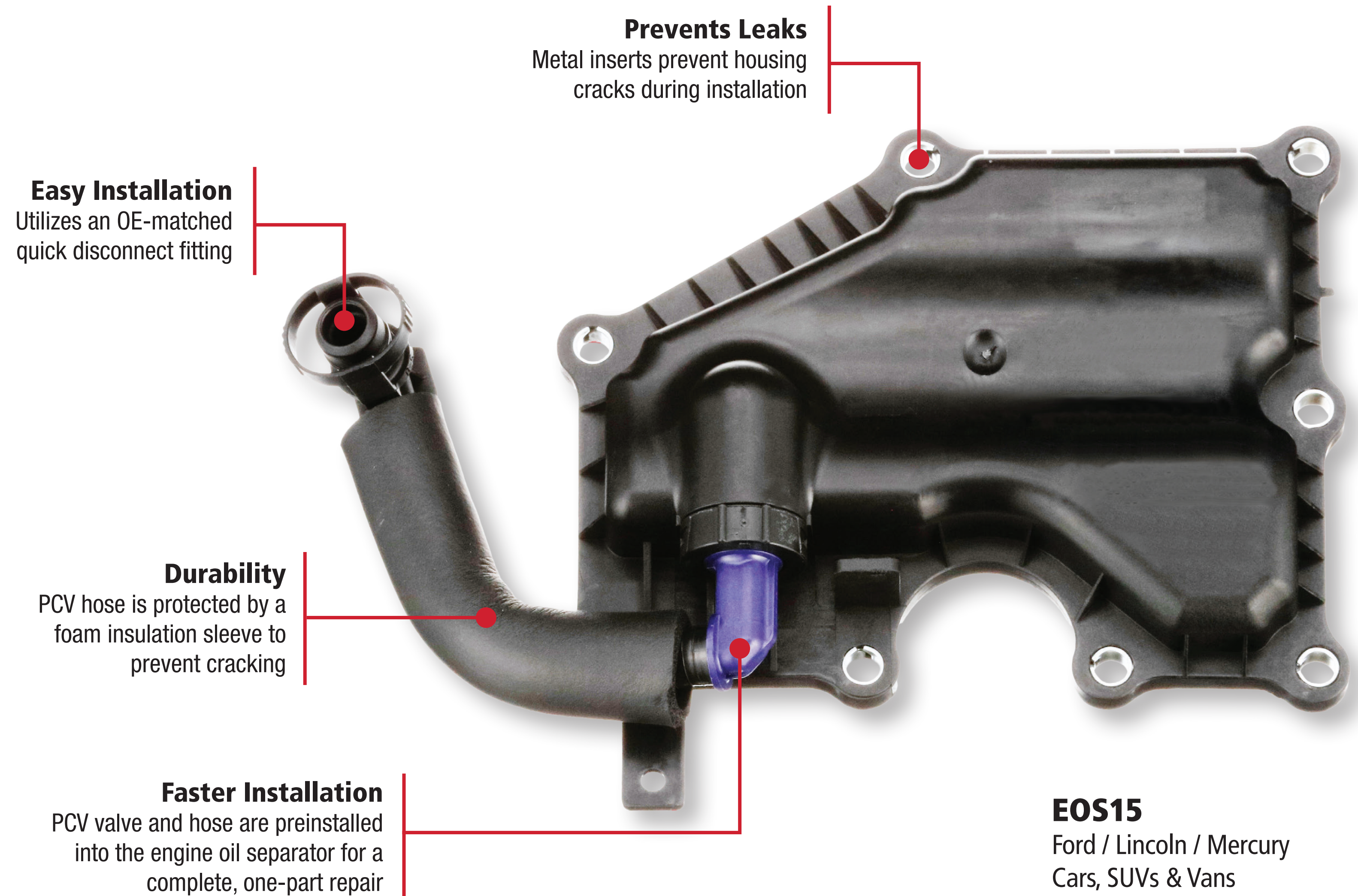
## Standard® Evaporative System Integrity Module



# Precision Engineering

Engine oil separators stop oil from recirculating into the cylinders, preventing carbon buildup. Excessive carbon on valves and pistons can cause driveability issues and may lead to major repairs. Standard® Engine Oil Separators are engineered and tested to keep engines operating efficiently.

## Standard® Engine Oil Separator



**EOS15**  
Ford / Lincoln / Mercury  
Cars, SUVs & Vans  
(2022-08)



# Crankcase Emission Components

Standard's 600+ Crankcase Emission Components are designed, manufactured, and tested to ensure that the vehicle maintains long-term reliability, performance, and fuel economy.

## Did You Know

Many forced-induction vehicles rely on the PCV valve to protect internal engine components. Under heavy load, a failed PCV valve will allow positive pressure into the crankcase, possibly damaging the vital seals inside of it.



### PCV Valves

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Reroutes crankcase gases to the intake where they are burned in the combustion process

360+ SKUs / 197M VIO



### PCV Grommets

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Manufactured using high-quality synthetic materials to resist breakdown from heat and promote a long-lasting seal around the PCV valve

20+ SKUs / 11M VIO



### Engine Oil Separators

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Designed to reduce carbon buildup and maintain engine efficiency by separating oil from recirculating crankcase gases

55+ SKUs / 33M VIO



### Engine Crankcase Breather Hoses

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Constructed using temperature-resistant materials and OE-style fittings to ensure easy install and proper function

135+ SKUs / 118M VIO



### Crankcase Ventilation Filters

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Engineered and tested to match OE filtration specifications

15+ SKUs / 8M VIO



# Top Movers: Crankcase Emission Components

## IMPORT APPLICATIONS



**V509**  
PCV Valve  
Hyundai / Kia  
Cars & SUVs  
(2023-07)



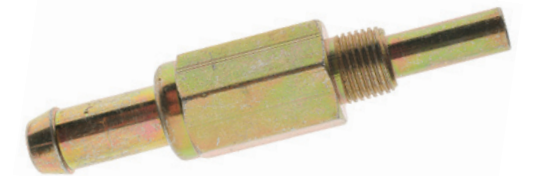
**V400**  
PCV Valve  
Nissan  
Cars, Trucks, SUVs & Vans  
(2020-02)



**V567**  
PCV Valve  
Honda / Acura  
Cars & SUVs  
(2019-13)



**V384**  
PCV Valve  
Honda / Acura  
Cars, Trucks & SUVs  
(2019-03)



**V231**  
PCV Valve  
Multiple Applications  
(2019-80)

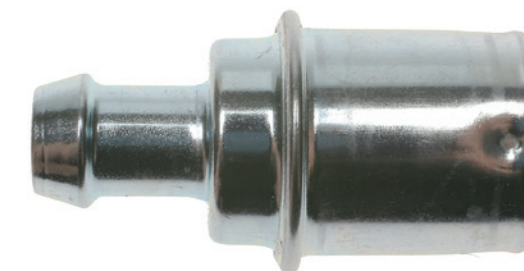
## DOMESTIC APPLICATIONS



**V178**  
PCV Valve  
GM  
Cars, Trucks, SUVs & Vans  
(1999-70)



**V485**  
PCV Valve  
Chrysler / Dodge / Jeep / RAM  
Cars, SUVs & Vans  
(2020-07)



**V341**  
PCV Valve  
Ford / Lincoln  
Trucks, SUVs & Vans  
(2004-97)



**V173**  
PCV Valve  
GM  
Cars, Trucks, SUVs & Vans  
(2012-70)



**V546**  
PCV Valve Elbow  
GM  
Cars & SUVs  
(2023-04)



# EGR Program

Standard's nearly 1,000 part EGR catalog offers a wide selection of high-quality replacement parts ranging from EGR Valves to hoses and switches, as well as repair kits and Pressure Feedback Sensors.

Standard® EGR components are subject to stringent testing and validation processes which ensure long-term durability, reliability and service life.



## **EGR Valves**

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Built from industrial-grade materials for durability and calibrated to ensure precise operation

600+ SKUs / 92M VIO

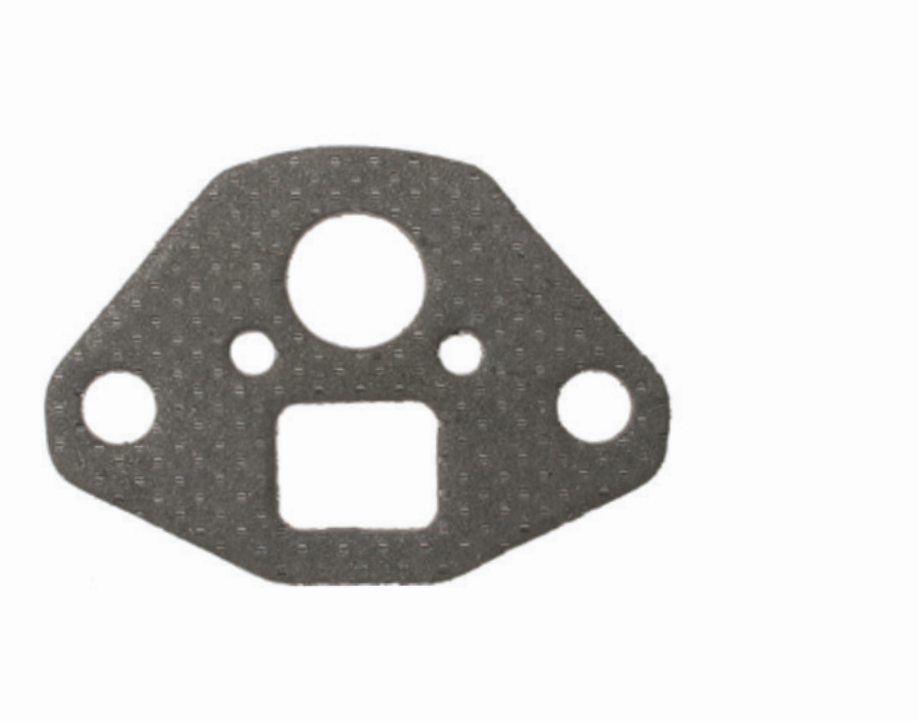


## **EGR Control Solenoids**

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Made with the finest components including multiple precious metal contacts and polymer thick film resistors

70+ SKUs / 30M VIO



## **EGR Valve Mounting Gasket**

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Designed and manufactured using application-specific, heavy-duty materials to seal against extreme EGR temperatures

185+ SKUs / 88M VIO

## **Standard's offering of EGR Emission Products also includes:**

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EGR Delay Valves

EGR Tubes

EGR Pressure Feedback Hoses

EGR Valve Control Solenoid Filters

EGR Repair Kits

...and much more

EGR Time Delay Control Switches





# Top Movers: EGR Components

## IMPORT APPLICATIONS



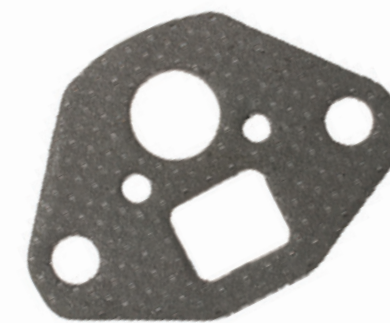
**EGV1025**

EGR Valve  
Mazda / Ford  
Cars, SUVs & Vans  
(2023-03)



**EGV994**

EGR Valve  
Mazda / Ford / Mercury  
Cars & SUVs  
(2006-01)



**VG6**

EGR Valve Mounting Gasket  
Multiple Applications  
(2019-72)



**EGV1134**

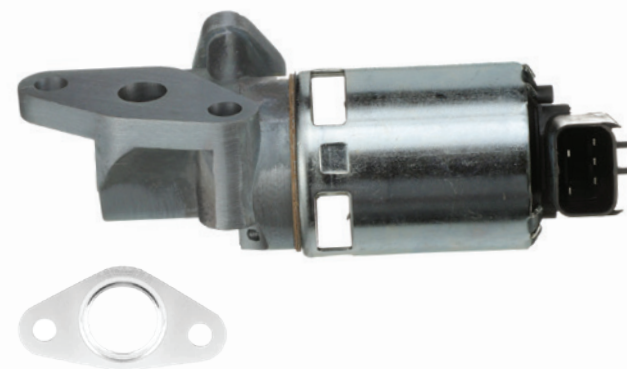
EGR Valve  
Honda / Acura  
Cars, Trucks & SUVs  
(2020-08)



**EGV658**

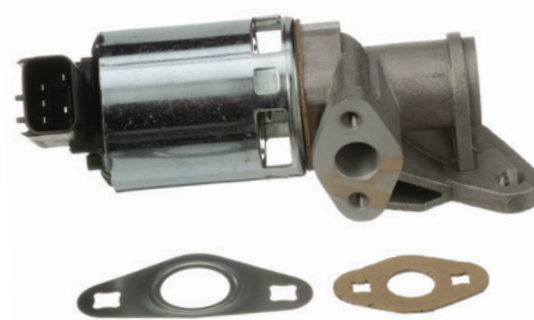
EGR Valve  
Honda / Acura  
Cars, Trucks & SUVs  
(2010-97)

## DOMESTIC APPLICATIONS



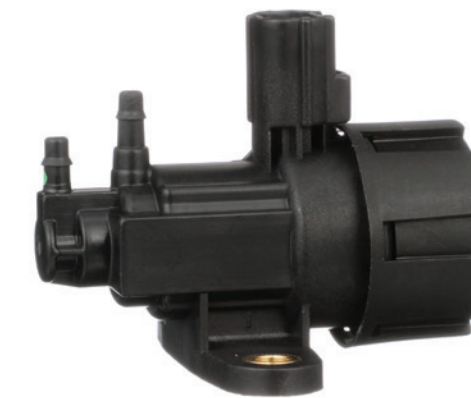
**EGV1149**

EGR Valve  
Chrysler / Dodge / Jeep  
SUVs  
(2011-07)



**EGV827**

EGR Valve  
Chrysler / Dodge / Jeep  
Cars, Trucks & SUVs  
(2010-03)



**VS63**

EGR Valve  
Ford / Lincoln / Mercury  
Cars, Trucks, SUVs & Vans  
(2011-95)



**EGV627**

EGR Valve  
GM  
Trucks & SUVs  
(1995-87)



**EGV589**

EGR Valve  
GM  
Cars, Trucks, SUVs & Vans  
(2005-93)



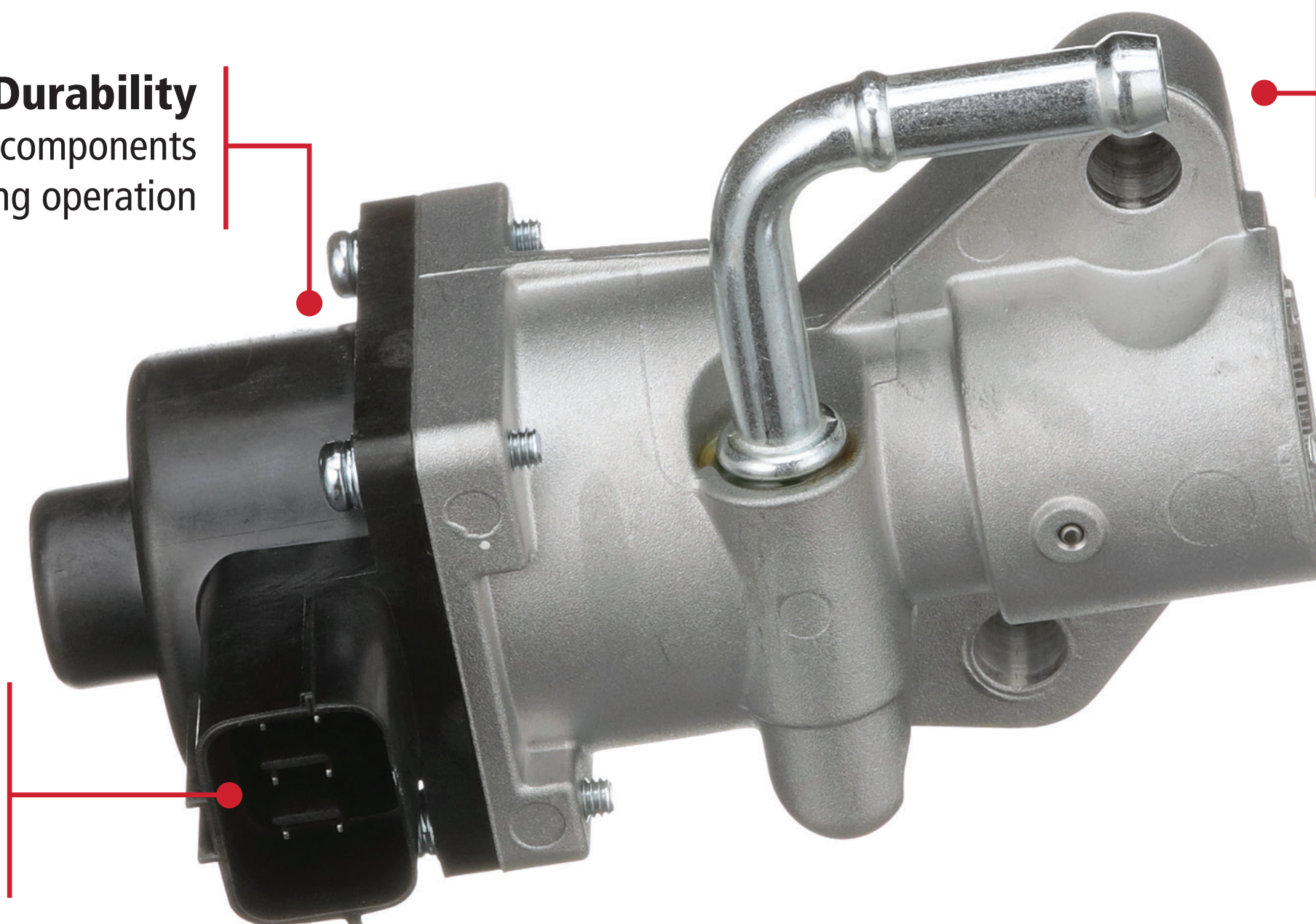
# Precision Engineering

Every Standard® EGR Valve is manufactured and calibrated for precise performance. To ensure trouble-free operation, each one must pass comprehensive quality testing including computer-controlled bench testing for resistance, leakage, and response and flow rates.

## Standard® EGR Valve

**Durability**  
Stainless steel valve components ensure long-lasting operation

**Corrosion-Resistant**  
Anti-rust coating provides additional protection against harsh elements



**Peak Conductivity**  
OE-matched connector fits the factory engine wiring harness

**EGV1025**  
Ford / Mercury / Mazda  
Cars, SUVs & Vans  
(2023-03)



**Easy Installation**  
Includes EGR gaskets for a comprehensive and complete repair



# Precision Manufacturing in the USA

Popular emission components such as ESIMs and Canister Purge Solenoids are manufactured in the USA at our Greenville, SC and Independence, KS facilities. Many other key emissions components are designed and manufactured at our Reynosa, Mexico facility, helping to maintain a strong North American manufacturing footprint. This allows us to completely control the manufacturing process from raw materials all the way to a finished part, ensuring your customers receive a 100% tested and approved quality component.

## SMP USA Emission Control Manufacturing Facilities

### Popular Categories Made in USA:

- Canister Purge Valves
- Canister Vent Valves
- Canister Purge Solenoids
- Canister Vent Solenoids
- Leak Detection Pumps
- ESIMs
- PCV Valves



**Independence, KS** 



 **Greenville, SC**

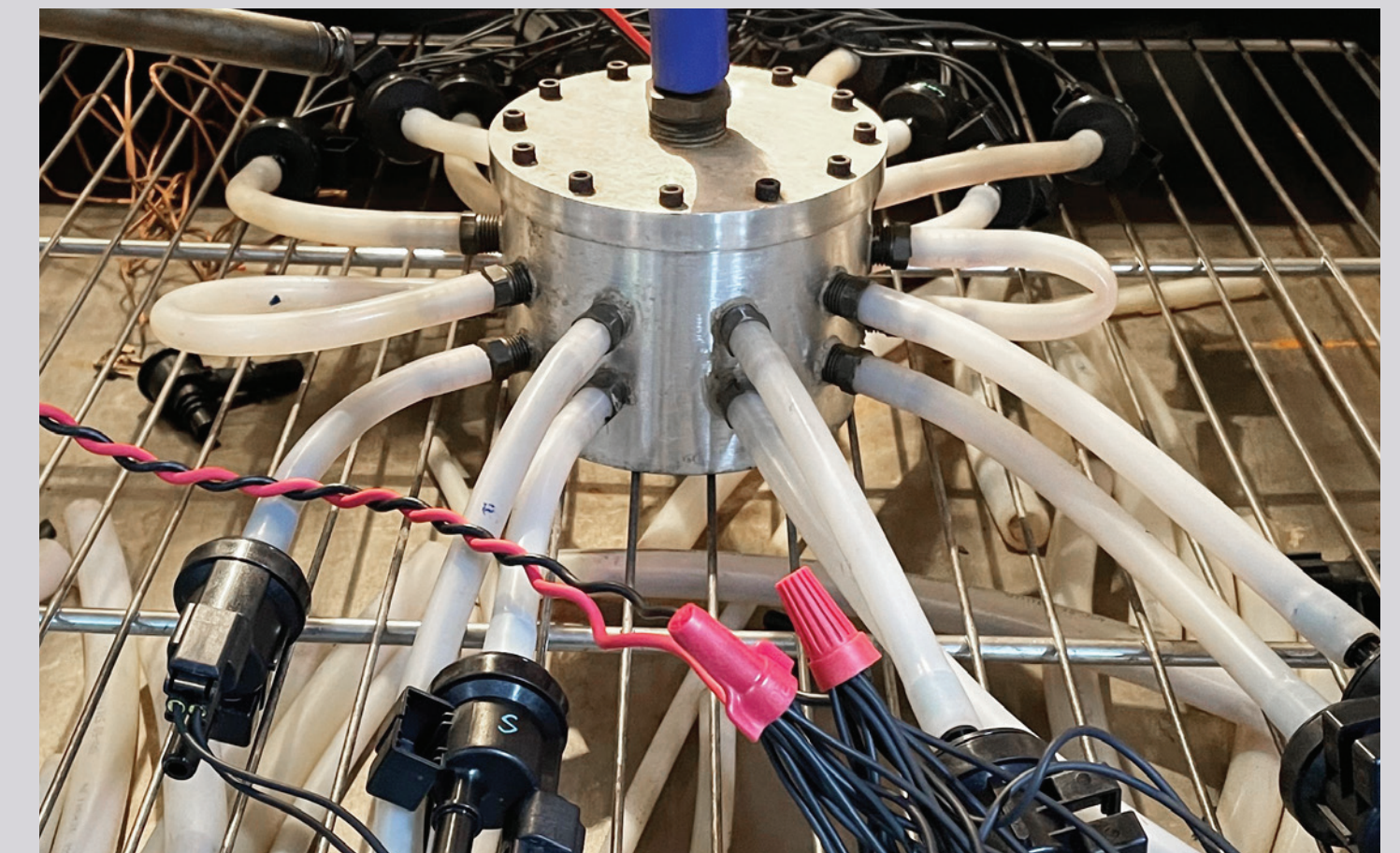
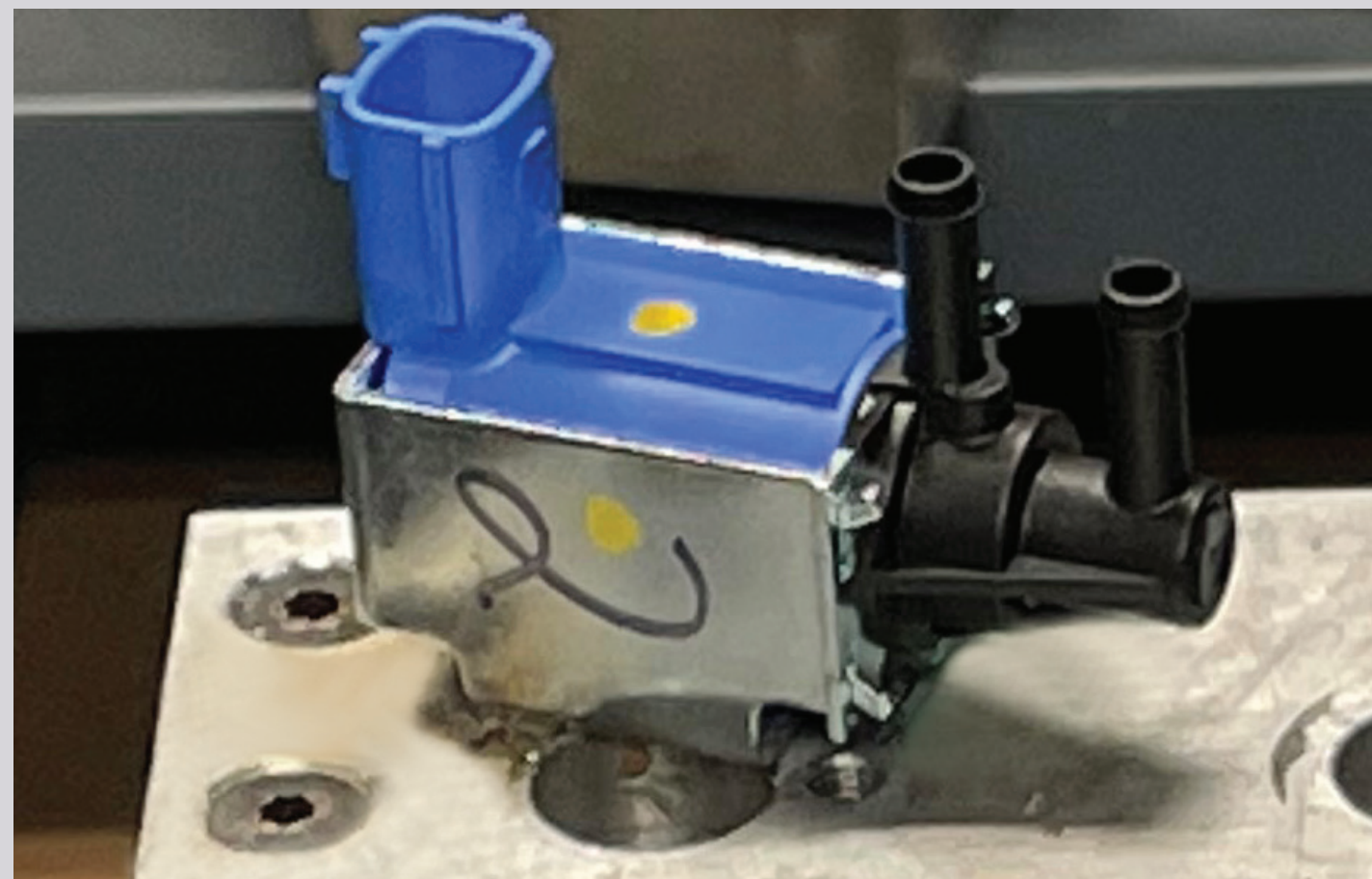
# Testing and Validation

All Standard® emission components undergo extensive testing, examination, and product validation. Performance benchmarking, product life-cycle testing, and end-of-line testing ensures that each part meets OE quality and operation.

Every testing process, while varying, remains thorough. For example, Standard® Canister Purge Solenoids are subject to extreme condition tests including accelerated wear, thermal cycling, thermal shock, salt fog, vibration, and drop testing.



Standard® Emission Control products undergo on-vehicle testing at our Irving, TX facility.



Canister Purge Solenoids undergoing vibration testing (left) and thermal cycle testing (right) at our Independence, Kansas facility.



# Standard<sup>®</sup> Pro Training Tech Tip

As experienced ASE-certified automotive technicians themselves, Standard<sup>®</sup> Pro Trainers are experts in emission systems.

Here's what they say to look out for during an emission system service.



After an EVAP system is repaired, it is important to verify the repair by running a self test and verifying that no DTCs have returned (this might not be possible for some small EVAP leak codes)



Crankcase breather systems on newer vehicles are now monitored and can set DTCs. Some of these components are labor intensive to access, so it is effective to replace them while other components are removed (starter, transmission, turbo, etc.)



Without a DTC, EVAP leaks can be difficult to find. Using a smoke machine to fill the system and find leaks is an excellent way to diagnose a problem

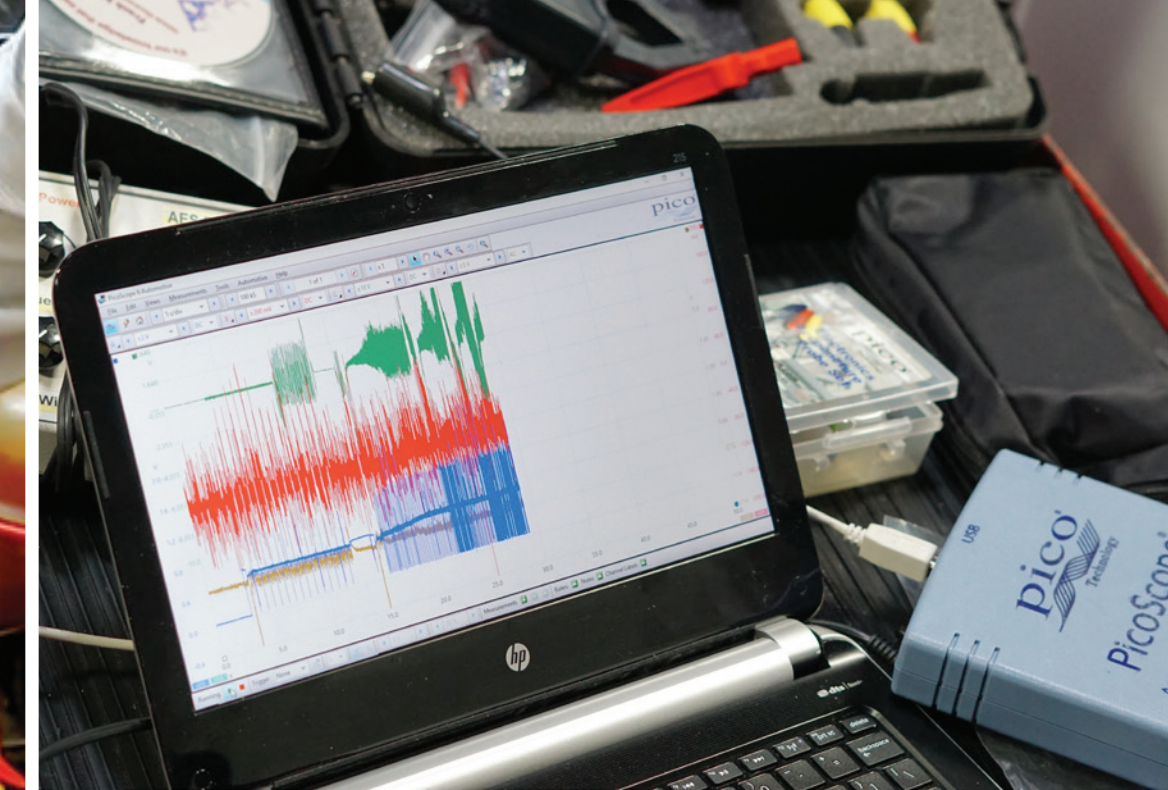


# Standard® Professional Training

**Award-Winning In-Person, Live  
Virtual, and Online Learning**

Standard® Pro Training delivers accredited classes that educate technicians in the latest automotive repair technologies, and techs can earn CEU credits.

An extension of Standard® training, our extensive YouTube video library has over 700 technical and installation videos.



## Available Classes

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- Chrysler EVAP Tips and Tricks
- Diagnosing Catalytic Converter Codes
- Diagnosing Secondary AIR Injection Systems
- EVAP System Diagnosis
- Lean Engine Diagnosis
- Misfire Diagnostics
- Rich Engine Diagnosis



## Available Classes

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- Advanced Engine Mechanical Diagnostics
- EVAP Diagnostics
- Ford Gas Vehicle Update
- GM Engine Controls
- Keeping It Clean - Emission Diagnostics and Repair
- Misfire Diagnosis
- Nissan / Infiniti Diagnosis

