

# OIL FILTER HOUSINGS

1

NAPA® Echlin® Oil Filter Housing Kits for Pentastar engines feature multiple design improvements to prevent oil leaks

2

Assembled from the factory with new accessories already installed, and include new gaskets

3

Manufactured utilizing high-strength materials that match the cooling characteristics of the OE design

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



ECHLIN

TECH/EXPERT

LOOKS RIGHT. FITS RIGHT. PERFORMS RIGHT.

NAPAEchlin.com

# Growing Market

Oil Filter Housings are one of the fastest growing categories in the aftermarket. This newer-style housing design has replaced spin-on filters, resulting in improved filtration and lessening the environmental impact of disposable metal oil filters.

As this category continues to grow, it is recommended that distributors and parts stores carve out additional shelf space to meet the increased demands of technicians.

## Examples of Vehicles with Oil Filter Housings



2023-16 Toyota Tacoma



2024-11 Jeep Grand Cherokee



2019-15 Ford Transit



2015-11 Chevrolet Cruze

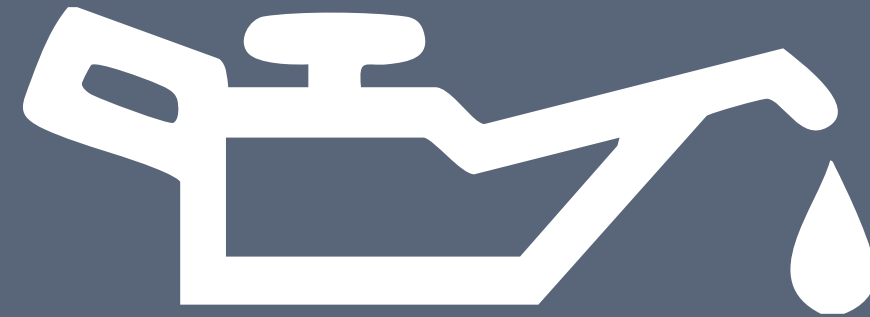


2016-15 Volvo XC60



2009-05 Audi A4

# Impact on Engine Systems



A restricted oil cooler can starve the engine of oil. If an engine is severely sludged up due to lack of maintenance, it is recommended to replace the oil cooler



OE oil filter housings can fail internally, which may cause the engine oil and coolant inside of them to mix, resulting in a potential engine failure



Most oil filter housings contain a cooler to help cool engine oil. Significant material and design changes can alter the cooling characteristics, deviating from the original engineering specs, which may lead to engine issues

# Overview

## Pentastar Oil Filter Housings

Often referred to as Chrysler, or Stellantis, oil filter housings, these modular housings used on the Pentastar 3.2L and 3.6L have looked similar since 2011. Though they look alike, there are real differences between model years, like flow rates and sensors. Because these housings are responsible for cooling and filtering the oil, it is critical that they match the original design for optimal performance.

### Did You Know

Tech Expert® utilizes Zytel® in the production of its Pentastar housings – the same strong, lightweight material used in the production of firearms, gearbox housings, and sporting goods.

## Application-Specific Engineering

Tech Expert® PN	Year Range*	OEM Oil Pressure Sensor	OEM Oil Temp. Sensor	Oil Filter Flow Rate
EOF100	2013-2011	5149062AA	5149077AB	12L / Minute
EOF101	2016-2014	5149062AA	5149077AB	10L / Minute
EOF136	2018-2016	68295556AA	None	10L / Minute
EOF103	2019-2017	68295556AA	5149077AB	10L / Minute
EOF104	2022-2019	68334877AA	5149077AB	10L / Minute
EOF111	2024-2022	68334877AA	None	10L / Minute

## Correct and Complete

**Only Tech Expert® offers complete assemblies with the correct components already installed**

*\*Model year data varies by application. Please refer to the Echlin® Brand catalog for year/make/model-specific components*

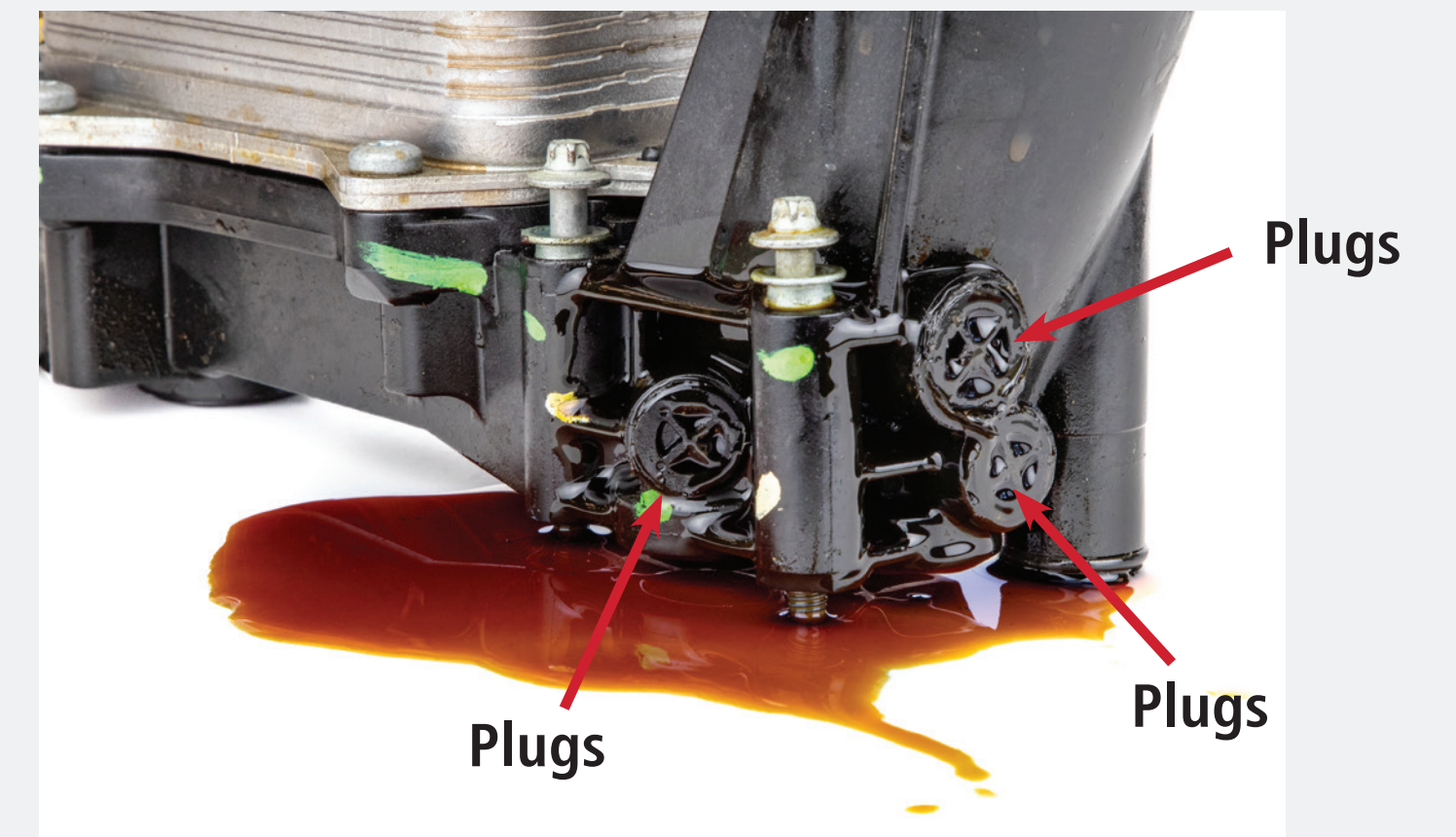


# Opportunities

It is common for the OE filter housings on Pentastar engines to leak around the plugs. Contrary to popular belief, these high-temp synthetic housings do not warp. Instead, the plugs used on the housings start to leak. During the manufacturing process, multiple plugs are inserted into the housing where the oil passages were formed. After years of service and thousands of heat cycles, these plugs can fail, allowing oil to seep from the housing.

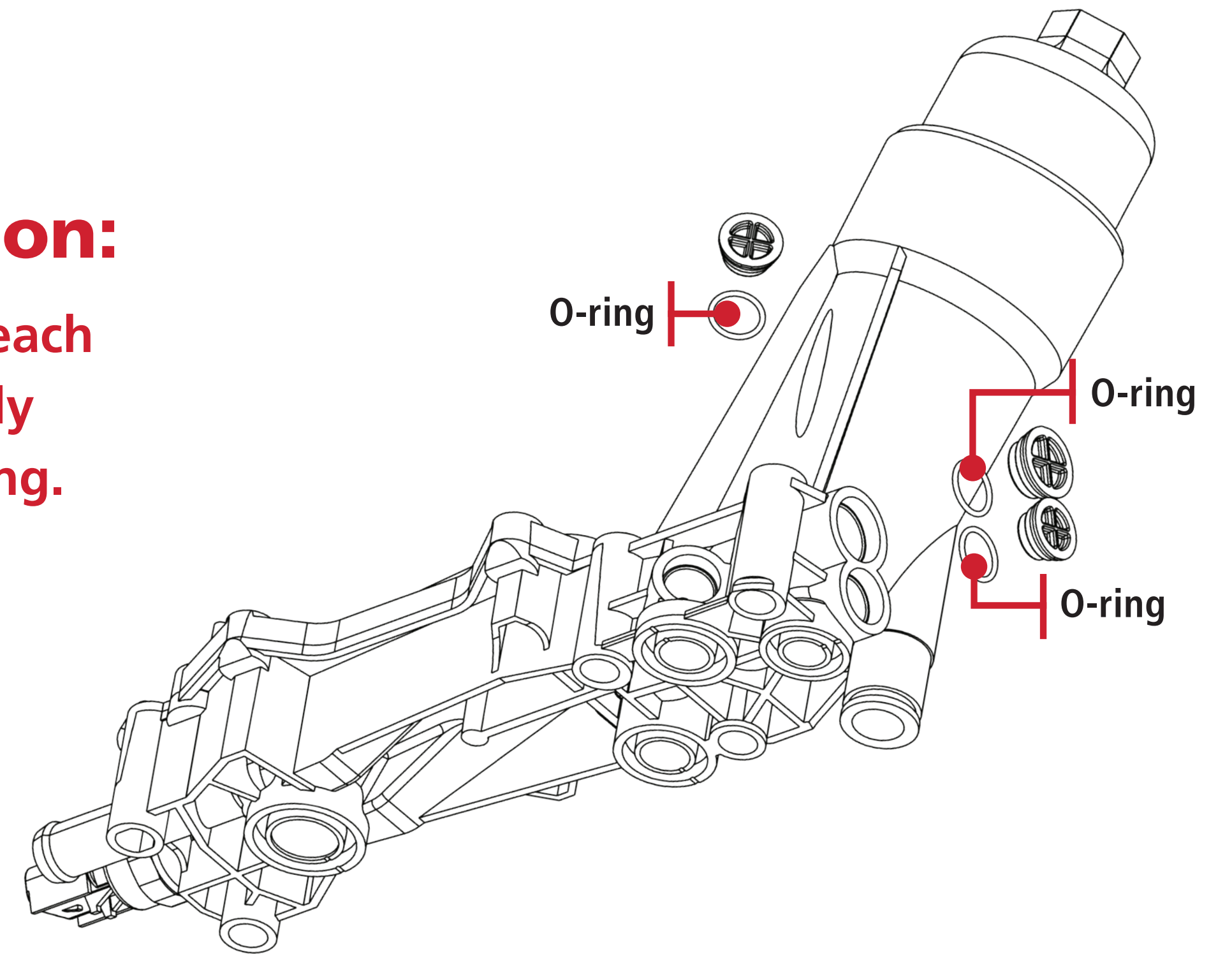
## OE Problem:

Oil leaks from the housing around the core plugs that are installed without any seals or O-rings.



## Tech Expert® Solution:

Echlin® installs an O-ring on each core plug before ultrasonically welding them into the housing. This creates a positive, long-lasting seal.



# Opportunities

It is also common for OE Pentastar housings to leak around the oil pressure sensor. The oil pressure around the sensor is high enough that it can eventually seep between the housing and the brass inserts.

## OE Problem:

Oil leaks around the brass sensor inserts because there is not an effective seal between the brass and the synthetic housing material.



## Tech Expert® Solution:

- 1 Tech Expert® Housings feature dual high-temp, distortion-resistant seals on the oil pressure sensor insert, as well as increased knurling on both of the brass inserts in order to prevent oil leaks
- 2 New oil pressure and oil temperature sensors are installed at the factory and correctly torqued in a controlled environment, eliminating the chance of damaging the threads or housing



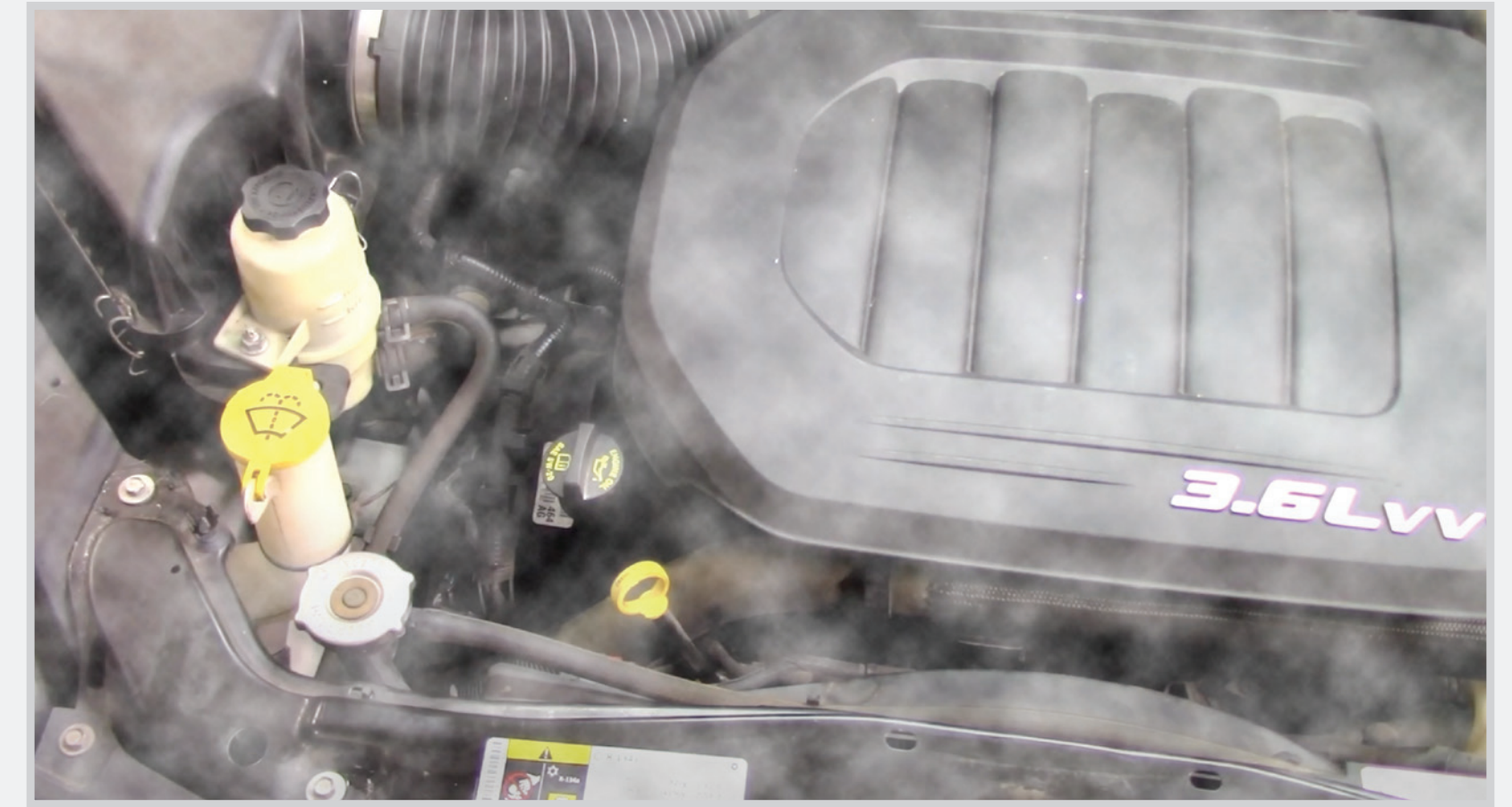
High-temp O-rings installed on the brass insert prevent oil leaks

# Opportunities

Another common weak point is the lack of a seal on the internal core plug which separates the oil and coolant passages. Tech Expert® Oil Filter Housings feature a robust seal to avoid this issue, preventing cross-contamination and avoiding the failure of related parts.

## OE Problem:

Oil contaminates the coolant causing cooling system problems due to a lack of seal on the internal core plug, resulting in overheating and premature radiator failure.



## Tech Expert® Solution:

Tech Expert® added a robust seal to the core plug that separates these two passages. This enhancement prevents an internal failure and cross-contamination.

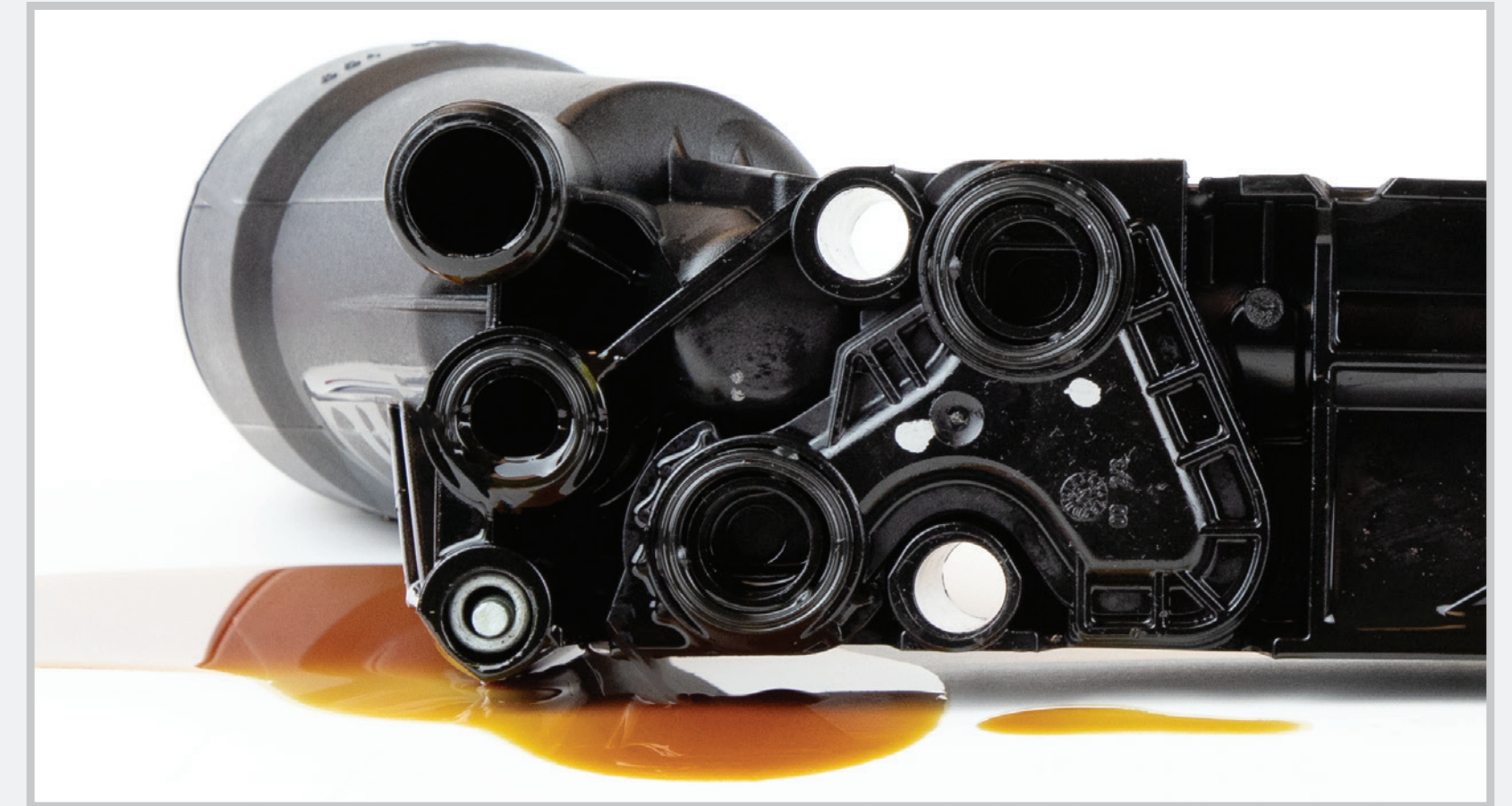


# Opportunities

The seals on OE housings are prone to distortion where they meet the engine, leading to oil leaks. Echlin® engineers identified this OE weak point and utilize seals that are resistant to distortion for a longer-lasting seal.

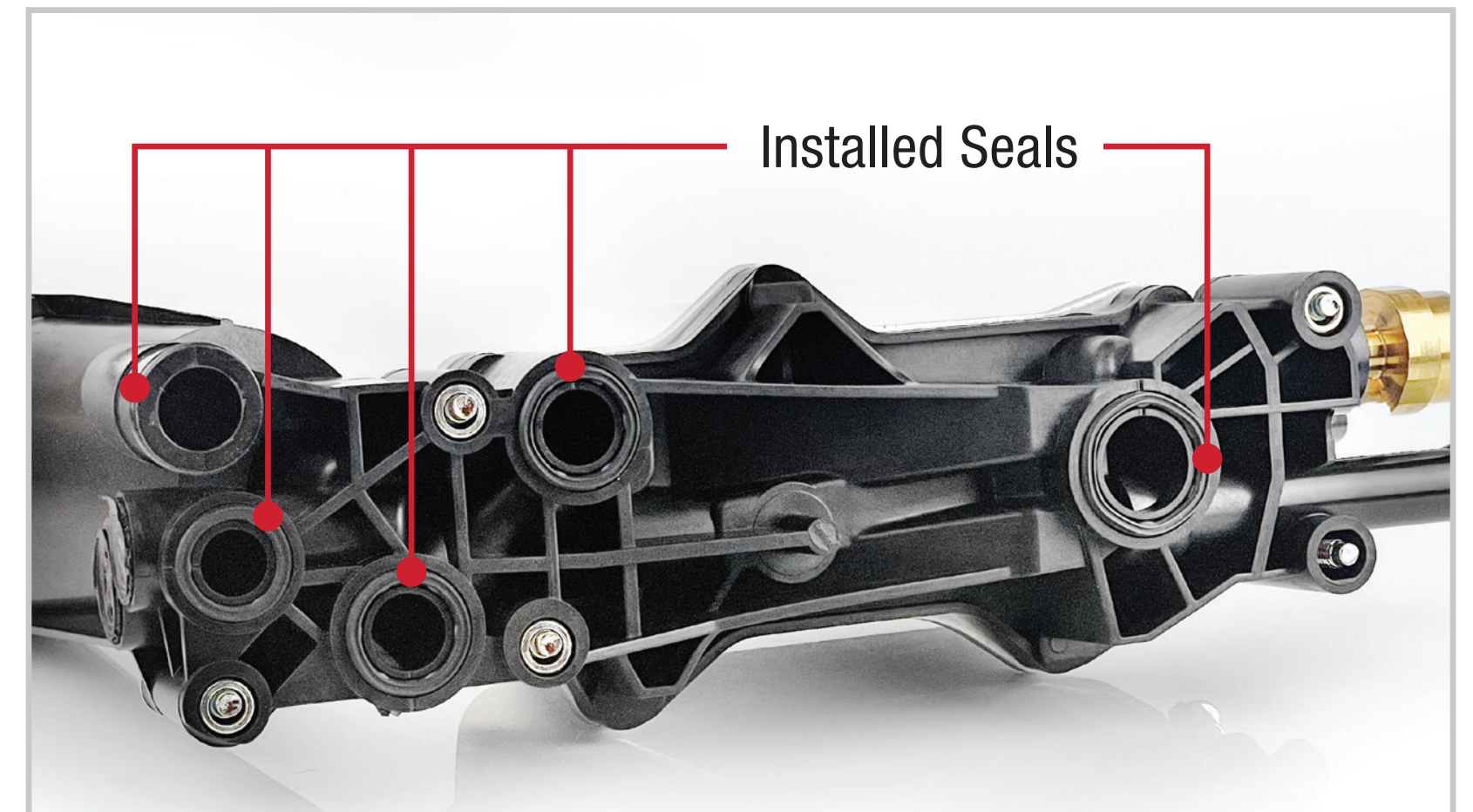
## OE Problem:

The OE seals often become distorted or crushed, resulting in an oil leak around the base of the housing.



## Tech Expert® Solution:

Tech Expert® installs new, distortion-resistant seals made from a synthetic material that is less prone to failure than the original.





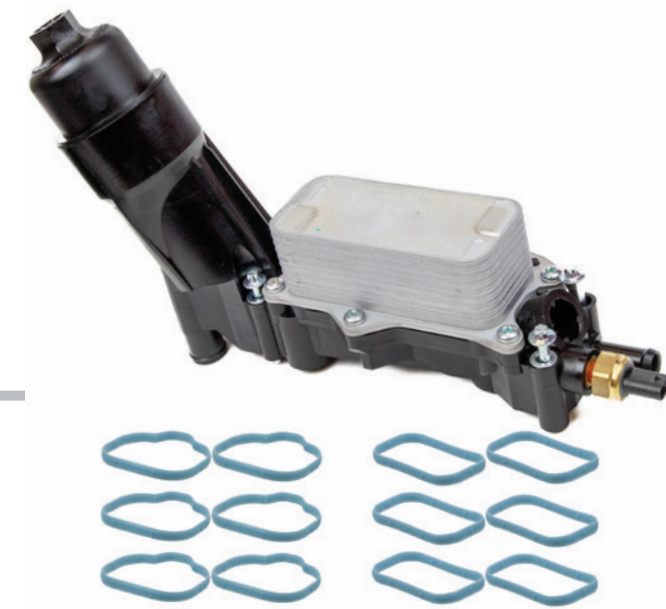
# What's New

## Oil Filter Housing Assemblies

To help keep engines running strong, it is critical that the oil filter housing matches the heat-dissipating characteristics of the original. When the OE uses synthetic materials, Tech Expert® uses high-strength Zytel®, and when the OE uses metal, Tech Expert® does as well.

We are committed to expanding this product line for import and domestic vehicles.

For the latest applications, be sure to check out our catalog at [NAPAEchlin.com](https://www.napaechlin.com).



### EOF111

Chrysler, Dodge, Jeep, RAM  
(2024-19) VIO: 6.6M



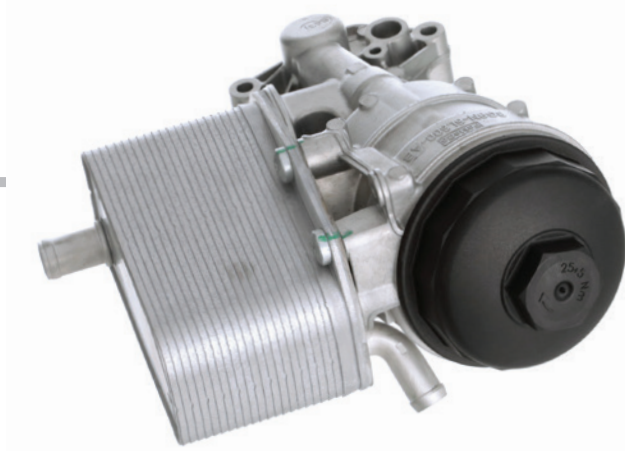
### EOF121

Toyota Tacoma  
(2023-16) VIO: 1.6M



### EOF131

Audi / VW Cars & SUVs  
(2017-05) VIO: 323K



### EOF108

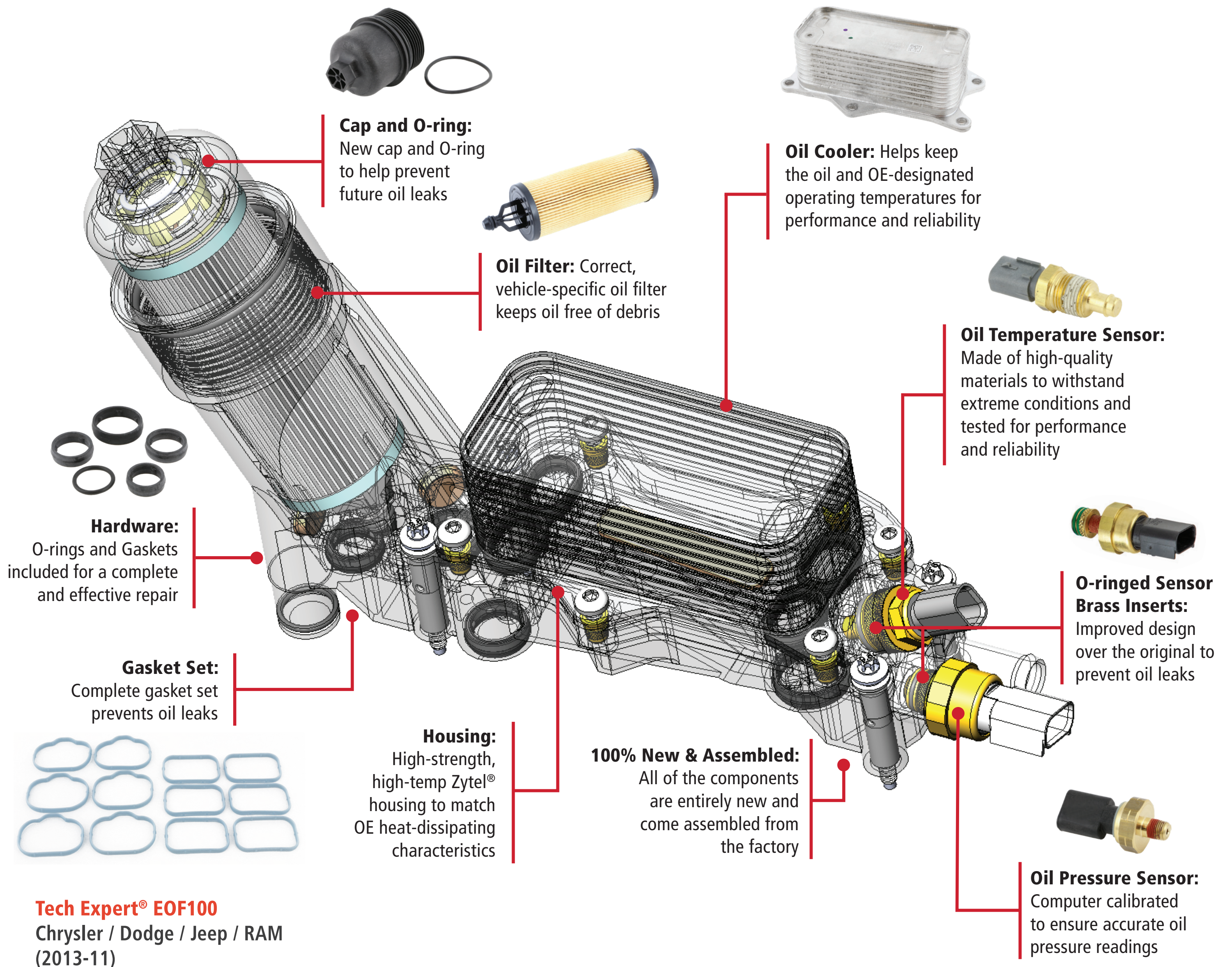
Volvo Cars & SUVs  
(2016-07) VIO: 151K



# Oil Filter Housing Kits

## Factory-Assembled, Complete, Drop-in Solution

The Tech Expert® EOF100 comes completely assembled, so all you have to do is drop it in place. All Tech Expert® Oil Filter Housing Kits include new oil temperature and oil pressure sensors. The oil filter and cap are exact OE-match and come already installed. The Tech Expert® Kit includes all new gaskets and hardware for a clean install – you won't have to reuse any of the old, worn pieces.



# Vehicle-Specific Filters

Tech Expert® Housings are also vehicle specific and designed to use the correct oil filter cataloged for the vehicle. Some competitor oil filter housings are universal, utilizing a single filter part number across multiple model years. Not only can this cause confusion, but the oil filter may not have the flow rate specified by the vehicle manufacturer.



# Related Parts

## Engine Oil Coolers

In addition to our Oil Filter Housings, we also offer a line of Engine Oil Coolers. Tech Expert® Engine Oil Coolers undergo extensive in-lab and on-vehicle testing to ensure that they match OE cooling characteristics.

For the most current applications, be sure to check out our catalog at [NAPAEchlin.com](https://www.napaechlin.com).



### **OIL146**

Toyota SUVs  
(2024-19) VIO: 2M



### **OIL116**

Ford Cars, Trucks SUVs & Vans  
(2023-12) VIO: 1.7M



### **OIL118**

Hyundai / Kia Cars & SUVs  
(2023-13) VIO: 1.4M



### **OIL142**

Subaru Cars & SUVs  
(2019-08) VIO: 168K



# Testing and Validation

Tech Expert® Oil Filter Housings and their installed components undergo extensive testing so they can be installed with confidence. Housings are pressure-tested for leaks, and oil pressure sensors and oil temperature sensors are tested for accuracy.

New applications are also tested for fit, performance and durability on real vehicles at our testing center in Irving, Texas.

## Lab testing at Echlin's Long Island City, NY Headquarters



# Echlin® Pro Training Tech Tip

As experienced ASE-certified automotive technicians themselves, Echlin® Pro Trainers are experts in oil filter housings.

Here's what they say to look out for during an oil filter housing replacement.



**It is important to follow the correct torque specs when installing a new housing. Slowly tighten each bolt, alternating corners to make sure all of the seals seat correctly**



**Before removing the intake manifold to access the oil filter housing, ensure that any dirt and debris are removed from the area, and cover the intake ports with tape to prevent dirt, coolant, or oil from getting into the intake ports. Remove the tape on reassembly**



**It is common for the seals to be damaged during installation, especially the front seal directly under the filter. It is recommended to use automotive lubricant/grease on this seal and take extra care when installing the housing**

# Echlin® Professional Training

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

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

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

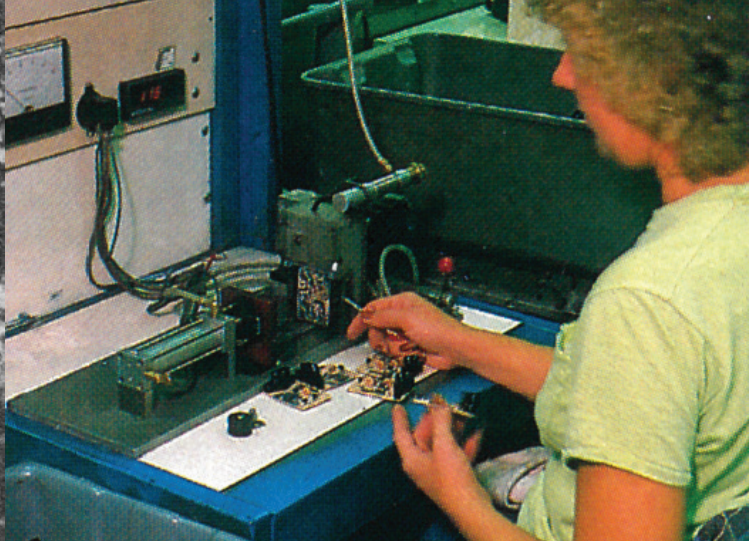
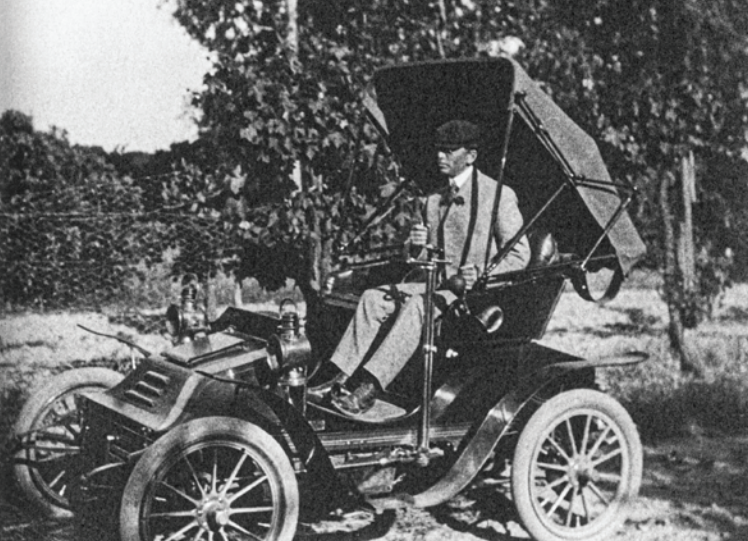


For information on replacing oil filter housing components, search  
“Oil Filter Housing” on the **NAPA® Echlin®** YouTube channel

# 100 Years of Excellence

For 100 years, marketing support materials and advertisements have been created to build Echlin® into a well-known, trusted, and reputable national brand.

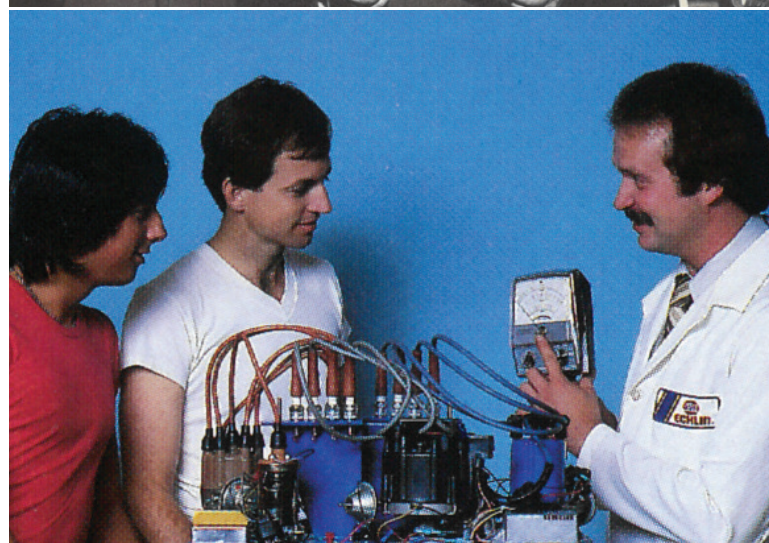
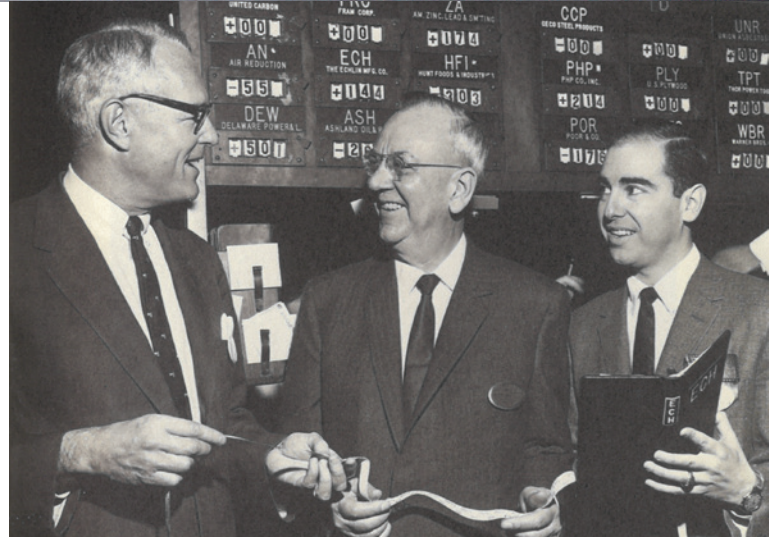
Building brand loyalty and recognition with professional technicians takes decades. For 100 years, Echlin® has been supporting NAPA® with national advertising campaigns and more recently, effective technical training programs. Most importantly, the Echlin® brand has endured because generations of professional technicians know they can trust what's in the box.



# ECHLIN®

# 100

## YEARS OF EXCELLENCE



**Visumatic...**  
a multi-purpose business system

**FOR BRINGING IN REPEAT BUSINESS**

When you finish a brake job, you can proudly say, "Mr. Morgan, I can see independent. Free to buy the best parts made. I installed United Brake Parts. I took pains to replace every part needed to give you safe, trouble-free performance. I am proud of what I did for you."

*"I INSTALLED UNITED BRAKE PARTS... AND I DID A FIRST CLASS JOB!"*

**Visumatic...** FOR BRINGING IN REPEAT BUSINESS

