

## IGNITION PROGRAM

# Highlights

1

Standard® and Blue Streak® offer more than 880 coils for 99% aftermarket-leading coverage

2

Every ignition coil is subjected to extensive testing and product validation

3

Popular Blue Streak® Heavier-Duty Coils are available in multi-packs for a complete coil service



## What's in your box?





# Growing Market

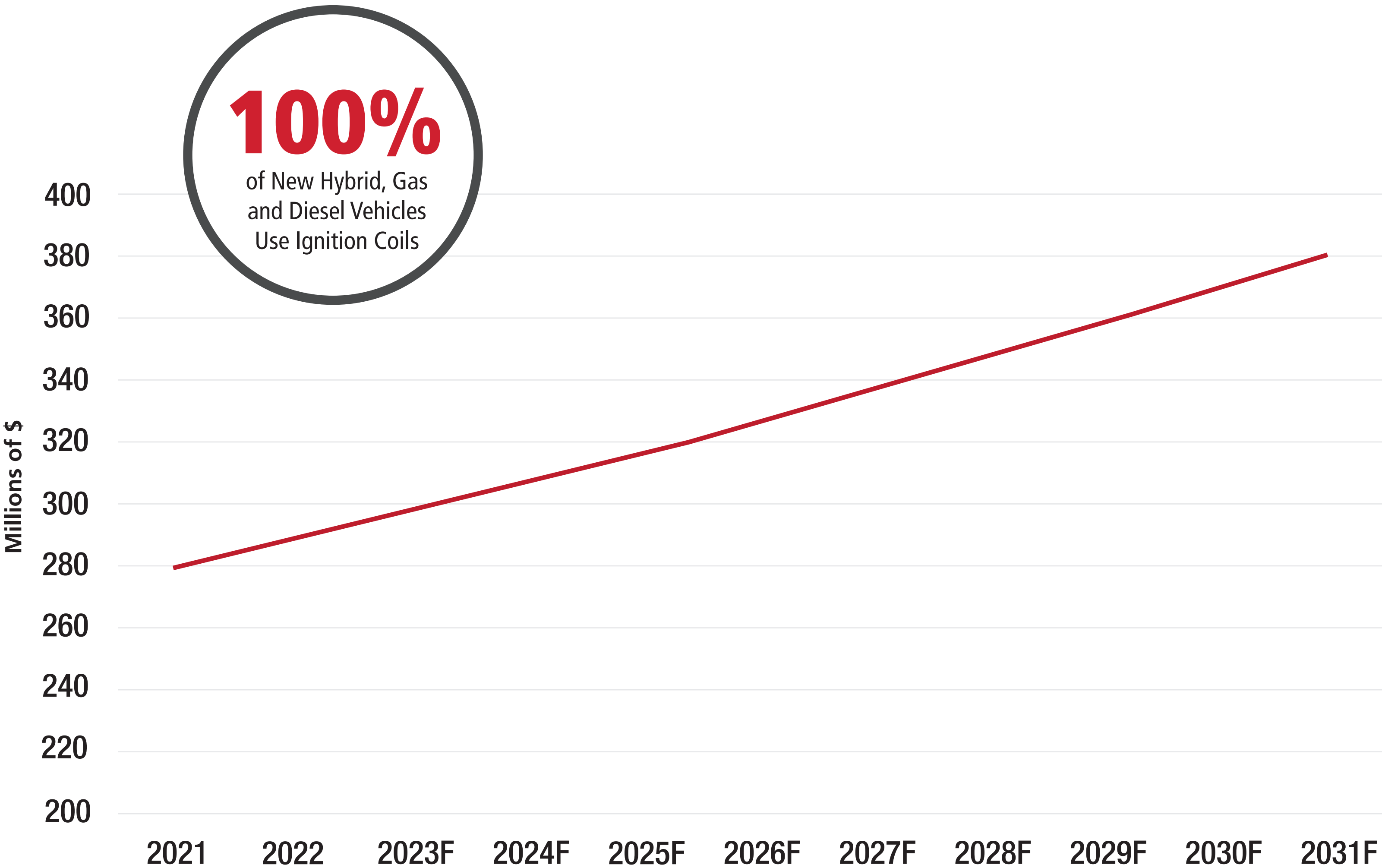
The North American ignition coil market is expected to expand at a compound annual growth rate of 3.1% through 2031.

Even with the growth of hybrid and electric powertrains, high OE failure rates will continue to drive aftermarket demand for ignition coils.

### Did You Know

Additionally, pencil ignition coils are projected to account for more than 33% of the sales through 2031.

## Projected Growth of Ignition Coils



Source: SMP Internal Data, Future Market Insights Ignition Coil Growth Report

STANDARD® IGNITION PROGRAM

Sales Opportunities

Some manufacturers, such as BMW, have released TSBs recommending that ignition coils be replaced with something other than ones produced by the OE supplier due to faults causing failure. In the case of the N52T engine, OE ignition coils were failing because of high-temperature fluctuations, which caused the coils to deteriorate over time.

Standard® and Blue Streak® offer a complete Ignition line designed to solve OE problems such as this one.



SI B12 18 14  
Engine Electrical Systems

September 2015  
Technical Service

This Service Information bulletin supersedes SI B12 18 14 dated March 2015.

**NEW** designates changes to this revision

**SUBJECT**  
Engine Misfire Due to Failed Ignition Coil

**MODEL**  
All

With the N51, **NEW** N52\*, N52K, and N52T engines

**NEW** \*Only N52 produced from 4/2006

**SITUATION**

- The Check Engine or Service Engine Soon (MIL) lamp is on with misfire fault(s) stored in the DME.
- Intermittent performance or rough running without a relevant DME fault stored

The most likely cause is that an ignition coil has failed, which can be confirmed in many cases with basic diagnosis.

**CAUSE**  
During operation with high temperature fluctuations, the different materials used in the Bosch ignition coil construction can deteriorate over time, leading to a failure.



2014 BMW 320i

OE PROBLEM  
Engine Misfires Due to Failed Ignition Coil

BLUE STREAK BY STANDARD SOLUTION  
New Ignition Coils

Blue Streak’s UF-667 premium Ignition Coils are manufactured using high-quality materials to withstand extreme conditions. They also undergo extensive testing to ensure reliability



## **STANDARD® IGNITION PROGRAM**

# **Impact on Engine Systems**



**Exposure to heat and water intrusion are two of the leading causes of premature failure in OE coils**



**If the ignition coil is not operating as it should be, the battery will not send the right amount of power to the spark plugs and your vehicle will burn more gas to compensate**



**An ignition-related misfire can damage the catalytic converter and oxygen sensors in a few miles or several minutes of driving if a vehicle doesn't register the faulty coil and continues to feed fuel to the cylinder**



## STANDARD® IGNITION PROGRAM

# What's New

Standard® is committed to regularly releasing new coils to provide the coverage you need. With high OE failure rates, technicians continue to look for reliable aftermarket alternatives, even on late model vehicles. Standard already offers over 880 ignition coils and is committed to regularly releasing new applications to give technicians the aftermarket solutions they are looking for.

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



**UF882**  
Mazda Cars  
(2021-19)  
VIO: 808K



**UF893**  
Ford Super Duty  
(2022-20)  
VIO: 194K



**UF874**  
Subaru Cars and SUVs  
(2020-19)  
VIO: 511K



STANDARD® AND BLUE STREAK® IGNITION COILS

Top Movers

IMPORT  
APPLICATIONS



UF667

BMW Cars & SUVs  
(2019-01)



UF596

Lexus/Toyota Cars & SUVs  
(2021-09)



UF242

Honda/Acura Cars & Vans  
(2008-99)



UF349

Nissan/Infiniti Cars,  
Trucks & SUVs  
(2021-01)



UF575

Audi/Volkswagen Cars & SUVs  
(2019-04)

DOMESTIC  
APPLICATIONS



FD503

Ford Cars, Trucks, Vans & SUVs  
(2019-97)



UF648

Chrysler, Dodge, Jeep & RAM  
(2021-11)



UF646

Ford Cars, Trucks & SUVs  
(2021-11)



UF270

Chrysler, Dodge, Jeep & RAM  
(2008-98)



FD508

Ford Cars, Trucks & SUVs  
(2008-04)



**STANDARD® IGNITION PROGRAM**

# Additional Coils and Related Parts

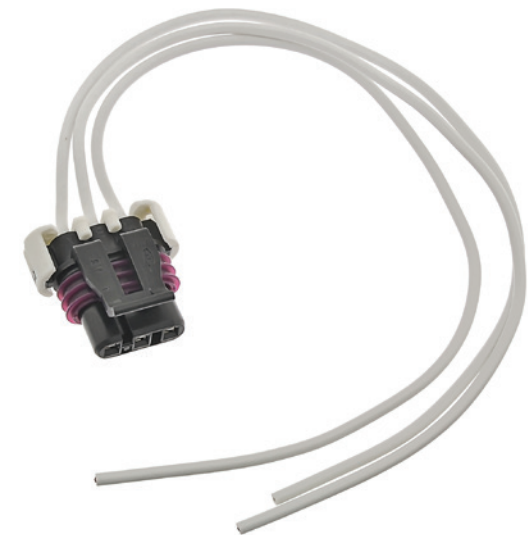
In addition to the traditional Coil-On-Plugs, Standard® offers an array of other high-quality coils and components to help with ignition repairs. From unique coil designs to service kits, Standard® has you covered.



## Coil Near Plugs (CNP)

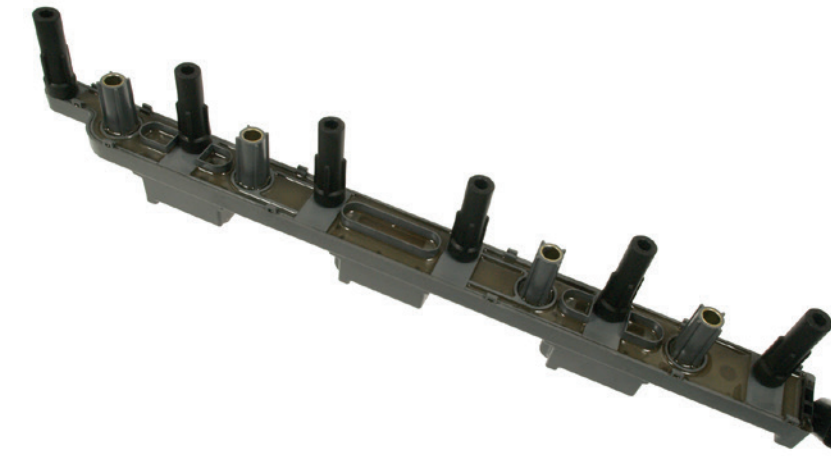
Reinforced bobbins prevent voltage flashover for extended service life.

High-dielectric epoxy is injected into the case and pulled into vacuum to eliminate air pockets and prevent moisture intrusion or thermal breakdown



## Ignition Coil Connectors

Utilizes high-grade materials to ensure peak conductivity and perfect connections



## Cassette Coils

High heat-resistant housing compound and coil boot withstands heat stress for longer durability

100% pure copper windings in the primary and secondary bobbins to improve durability and provide higher resistance to internal shorts and dielectric breakdown



## Coil-On-Boot Service Kits

Multiple-piece design featuring a phenolic tube and silicone tip. Includes spring and resistor



## Coil Packs

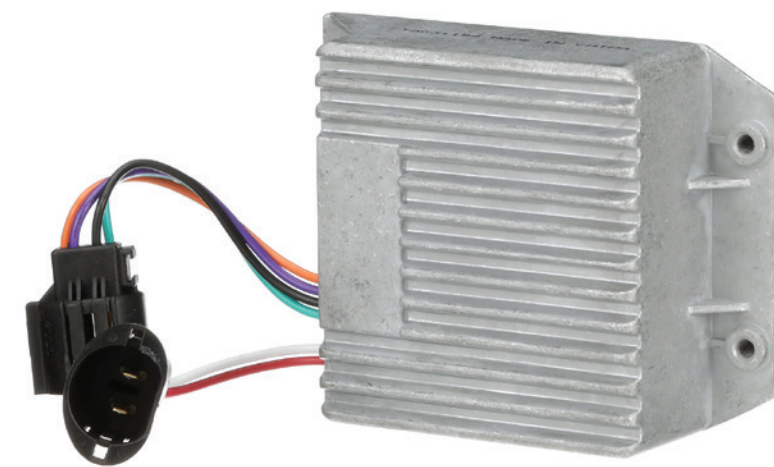
Housing made from thermoplastic compounds to withstand heat stress

Full E-Lam core of silicon steel and solid brass high-voltage terminals protects against corrosion.

## STANDARD® IGNITION PROGRAM

# Other Ignition Systems

In addition to newer style coils, Standard® offers multiple ignition components for classic vehicles. These components help restore performance on older, higher-mileage vehicles.



## Ignition Modules

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Standard Ignition Modules use top of the line technology to ensure perfect timing every time

Matches the OE part and ensure better connections, greater dependability, and longer life despite being subjected to intense vibrations and the tough operating environment of the engine

300+ SKUs



## Distributor Assemblies

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High-dielectric strength cap ensures accurate energy transfer and spark timing, while stainless steel screws protect against corrosion

Improved gear design for enhanced performance in high-torque applications

Available for GM 4.3L V6 and 5.0/5.7L V8 applications



## Spark Plug Wire Sets

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Designed, built, and tested to meet or exceed the tough international IATF 16949 quality standards

Standard® Spark Plug Wire Sets feature matching boots, a wire core and jacket, and extras like clips, trays, looms, and numbered leads

Available for domestic and import vehicles



## BLUE STREAK® MULTI-PACKS

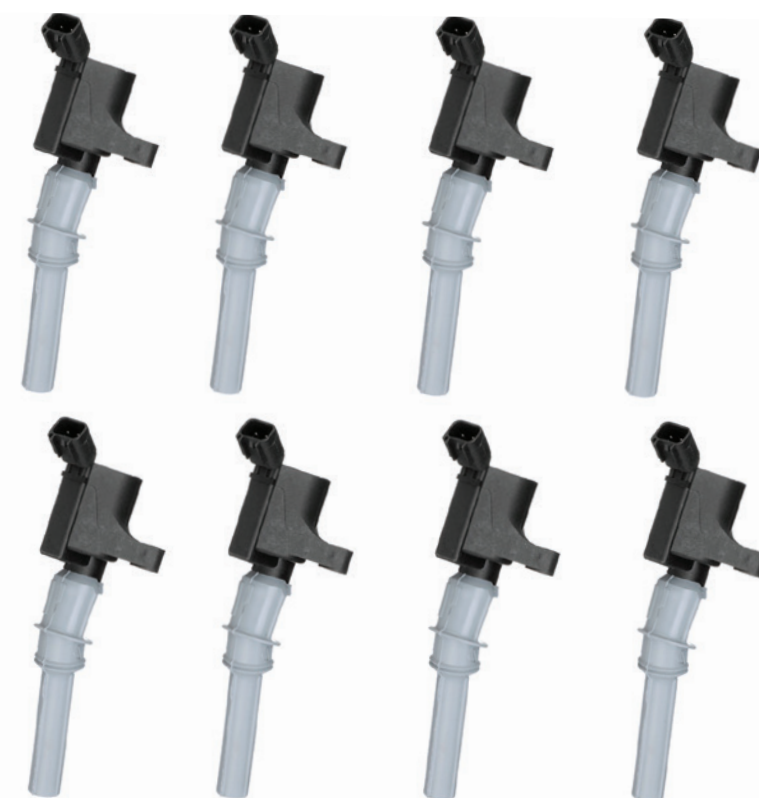
# Problem Solving Kits

Many of the most popular Blue Streak® Heavier Duty Coils are now available in multi-packs. These are available for both import and domestic vehicles and help technicians solve known problems at once.

A total of 30 Blue Streak® Coil Multi-Pack Kits are currently available with more to come.



**FD503K8**  
Ford  
Trucks, SUVs & Cars  
(2016-97)



**UF349K6**  
Nissan/Infiniti  
Trucks, SUVs & Cars  
(2020-02)



**UF303K6**  
General Motors  
SUVs  
(2008-02)



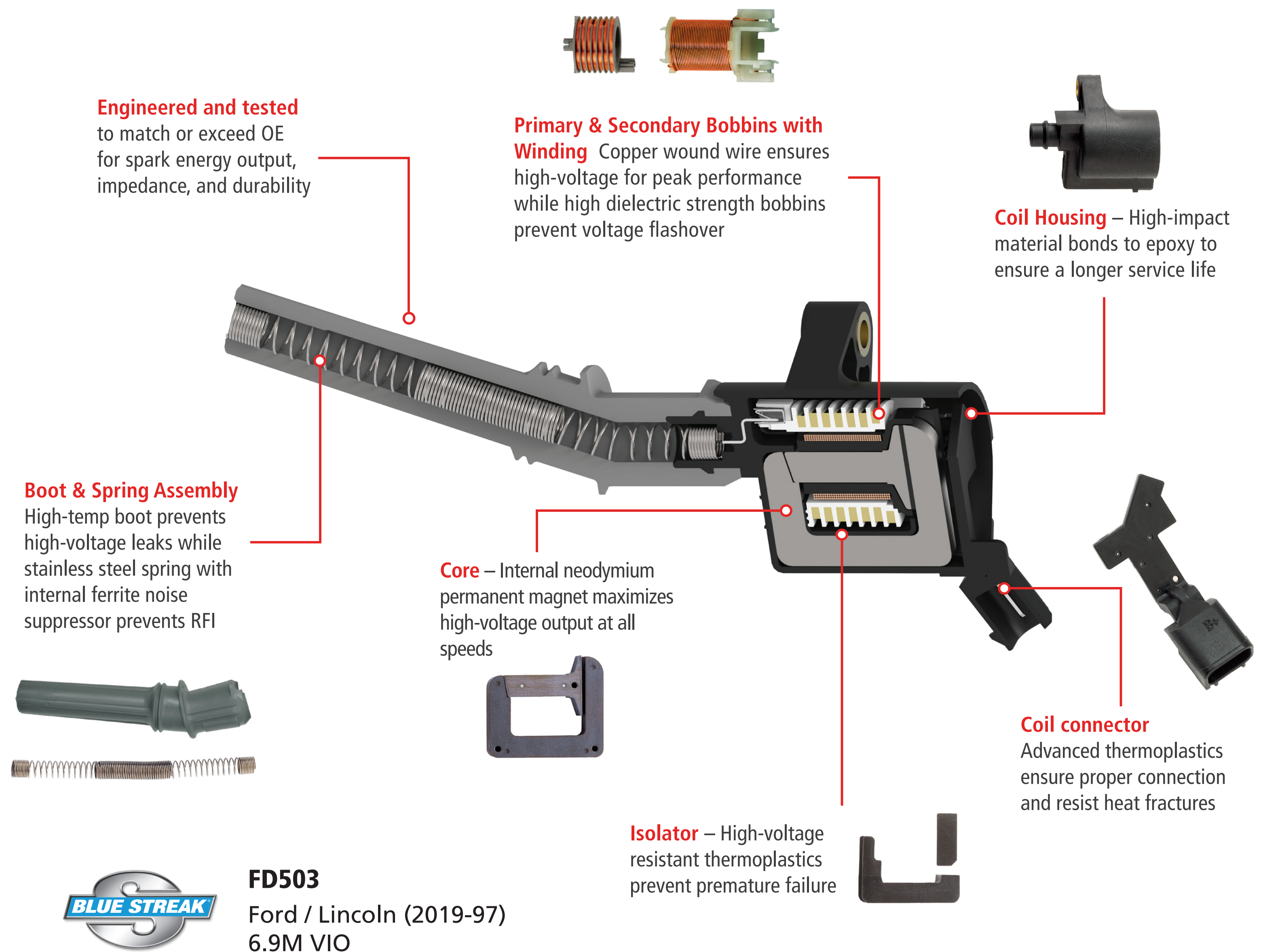


## STANDARD® IGNITION COILS

# Engineering Improvements

Premium parts start with premium components. Each Standard® and Blue Streak® Ignition Coil is engineered with features to ensure that our Coils will perform under the most extreme conditions.

Heat is a leading cause of coil failure. The Blue Streak® FD503 features multiple design improvements to improve insulation and reduce operating temperatures. This means better-performing and longer-lasting ignition coil.



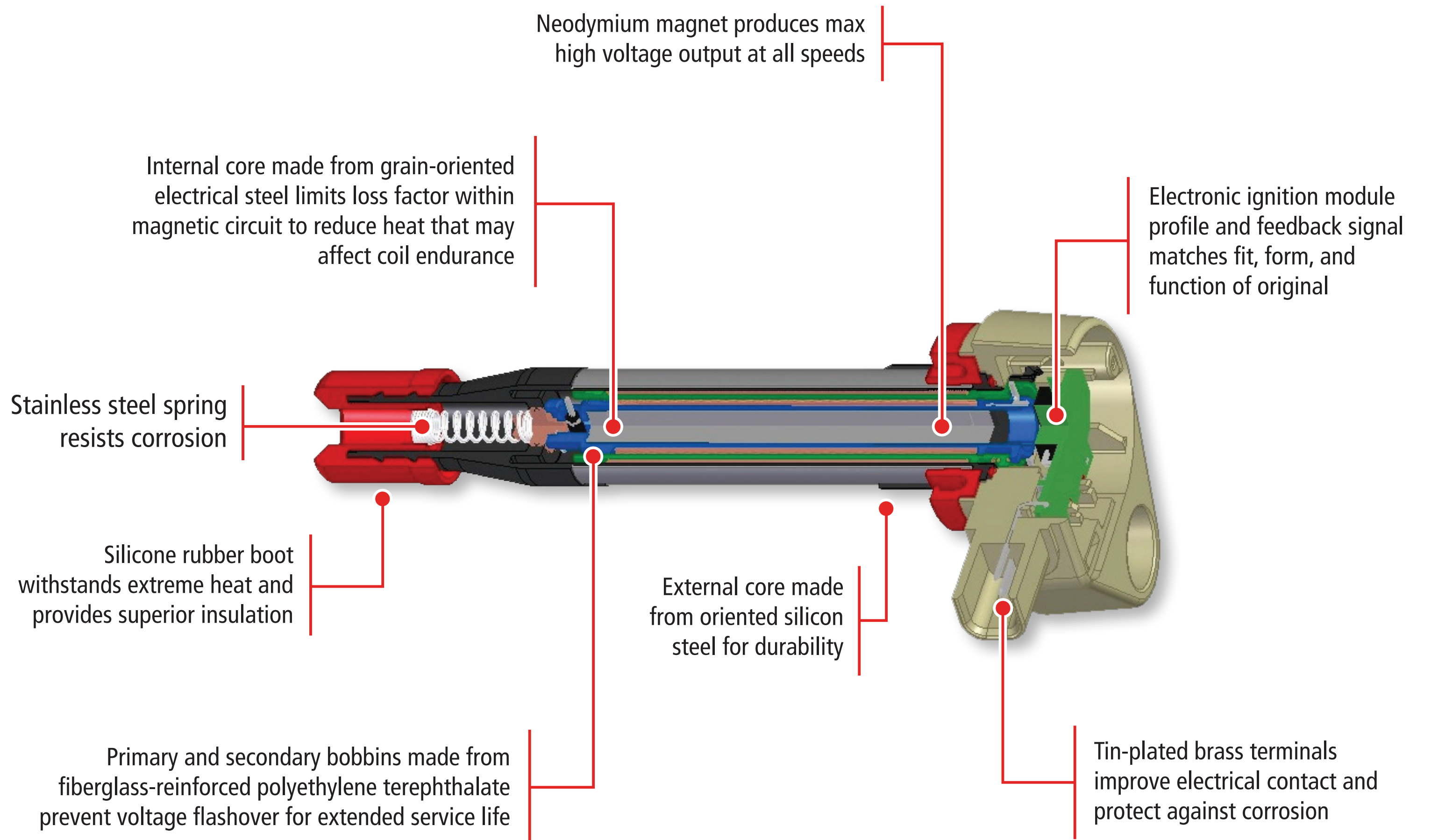


## STANDARD® IGNITION COILS

# Engineering Improvements

A Coil-On-Plug acts as both the ignition coil and the spark plug wire set: it creates spark energy and contains and delivers the high-voltage energy to the spark plug.

Each Standard® and Blue Streak® Coil features an electronic ignition module profile and feedback signal that matches the performance designated by the vehicle manufacturer. Standard® and Blue Streak® Coils also feature a stainless steel spring to resist corrosion and a neodymium magnet to produce max high-voltage output at all speeds for a superior coil.



### Coil-on-Plug Pencil Coil UF242

Honda/Acura (2010-99)

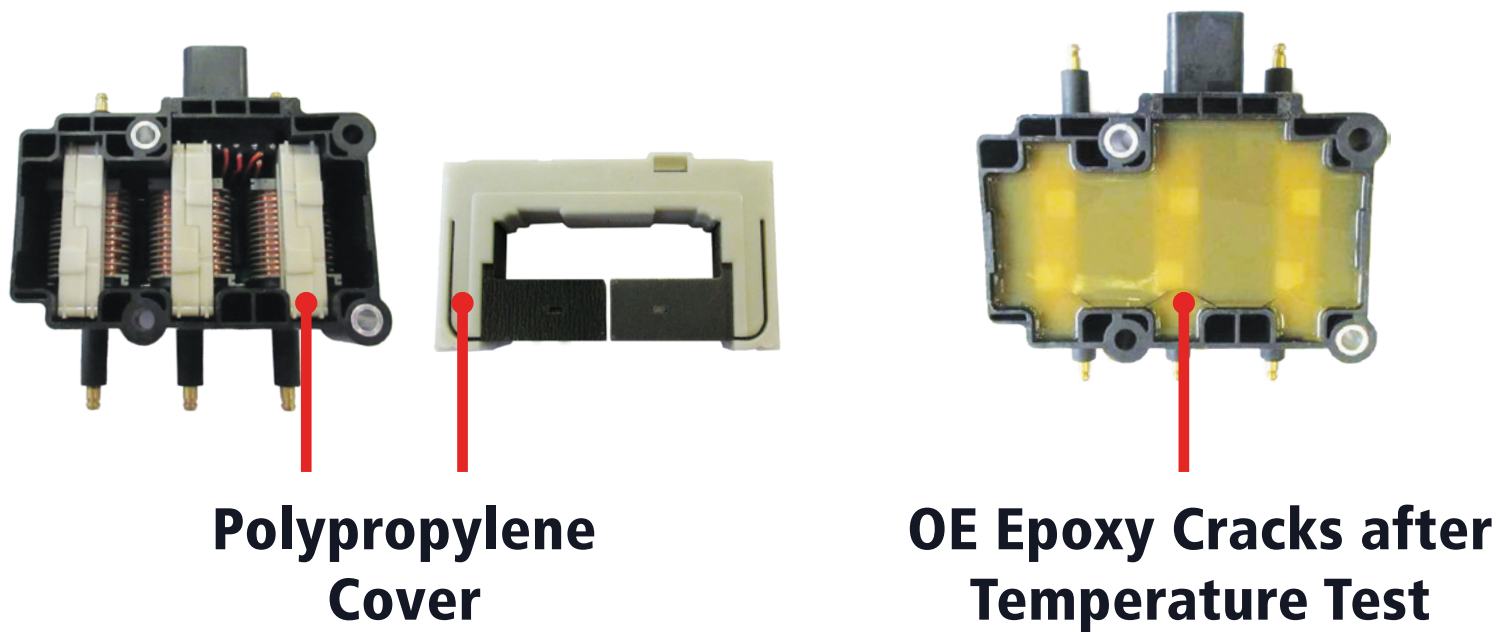
**STANDARD® IGNITION COILS**

# Engineering Improvements

In addition to an inability to manage high temperatures, moisture intrusion is another common reason why OE coils fail. Our engineers identify OE weak points and design coils that last

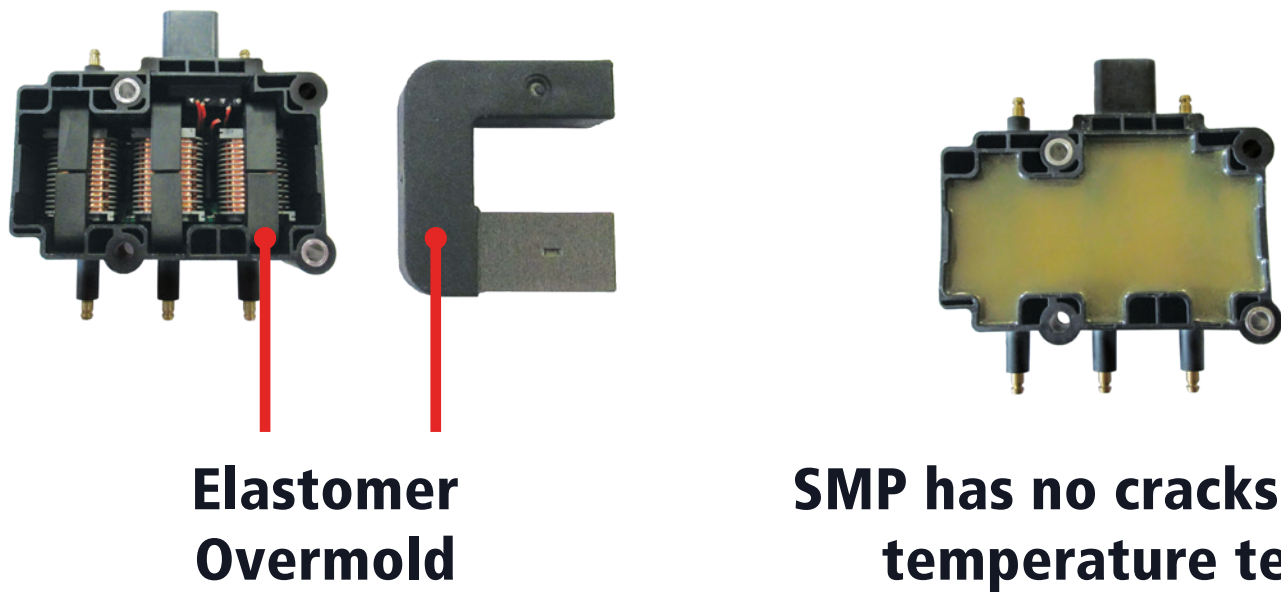
## Eliminating Moisture Intrusion

### OE Coil

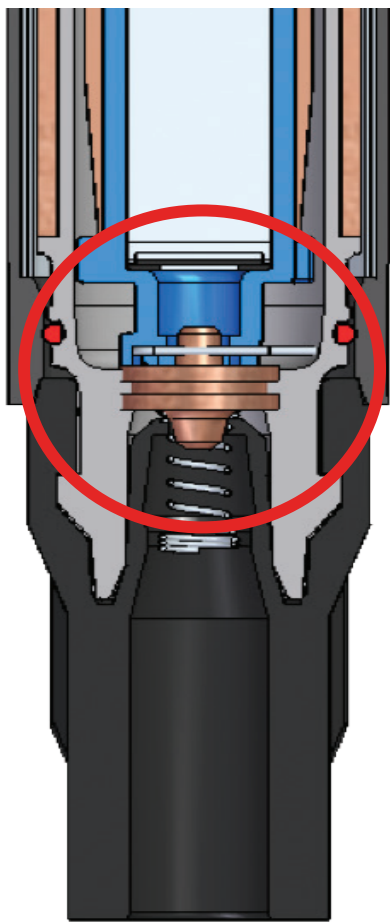


Higher temperatures cause the epoxy to crack, allowing moisture in and causing the OE coil to fail

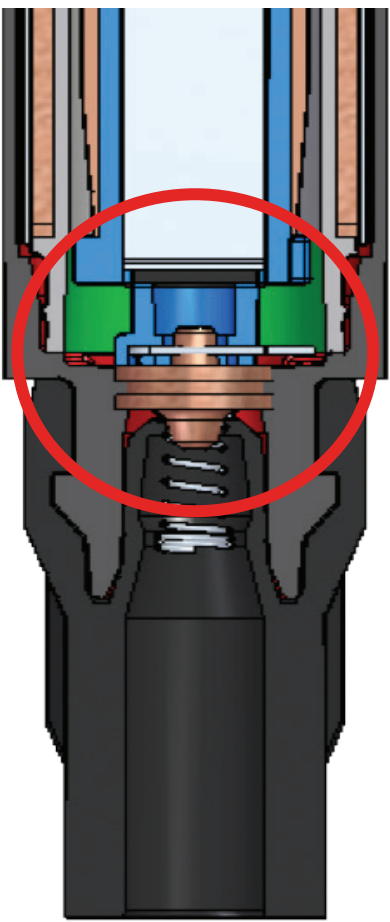
### SMP Coil



Standard's epoxy stays intact, keeping moisture out and allowing the coil to perform as designed



**OE design includes an O-Ring**  
Once the O-Ring breaks down, moisture can enter the coil, resulting in a coil failure



**SMP engineered a robust, one-piece design**  
The SMP coil eliminates the need for an O-Ring, removing the chance of moisture intrusion

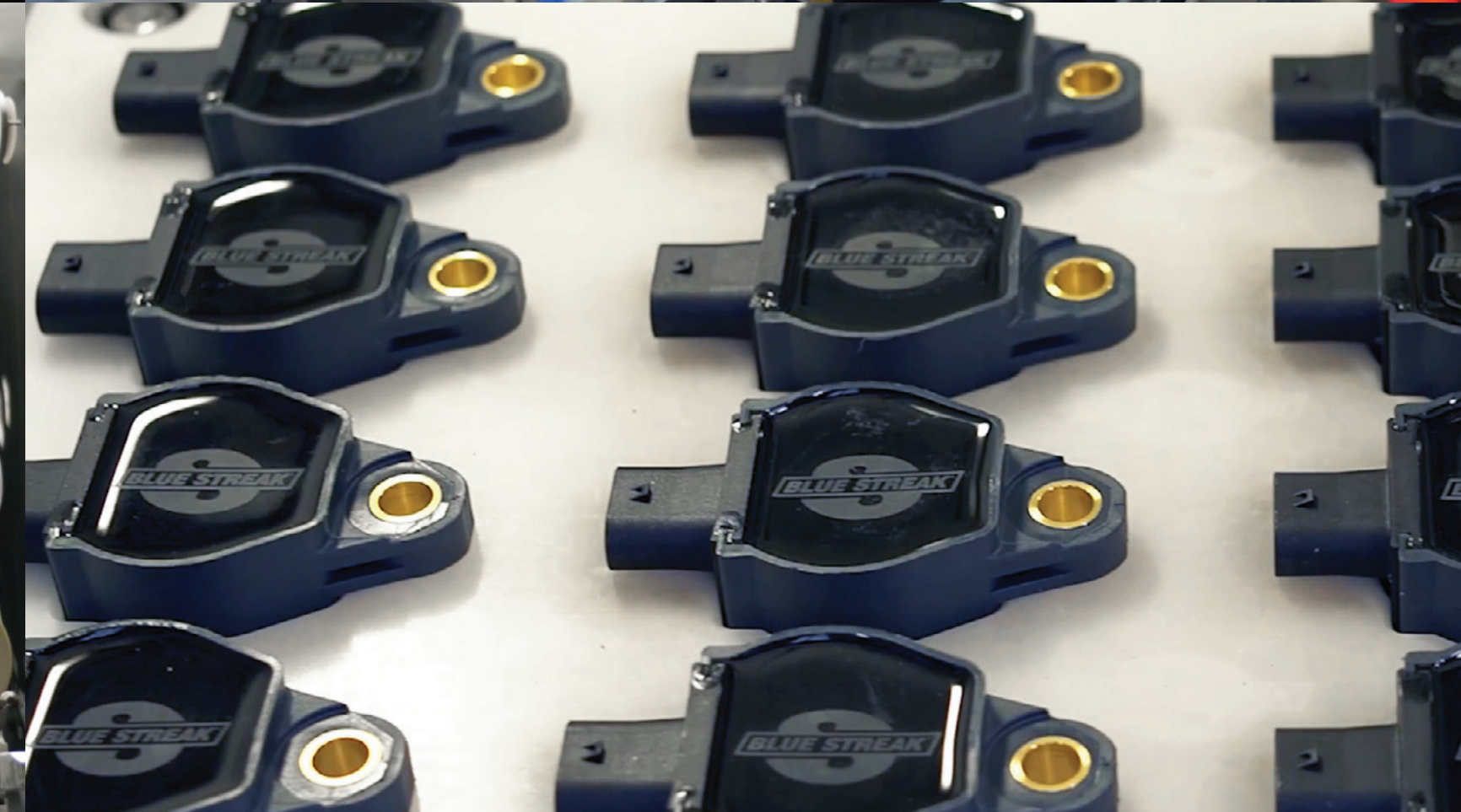
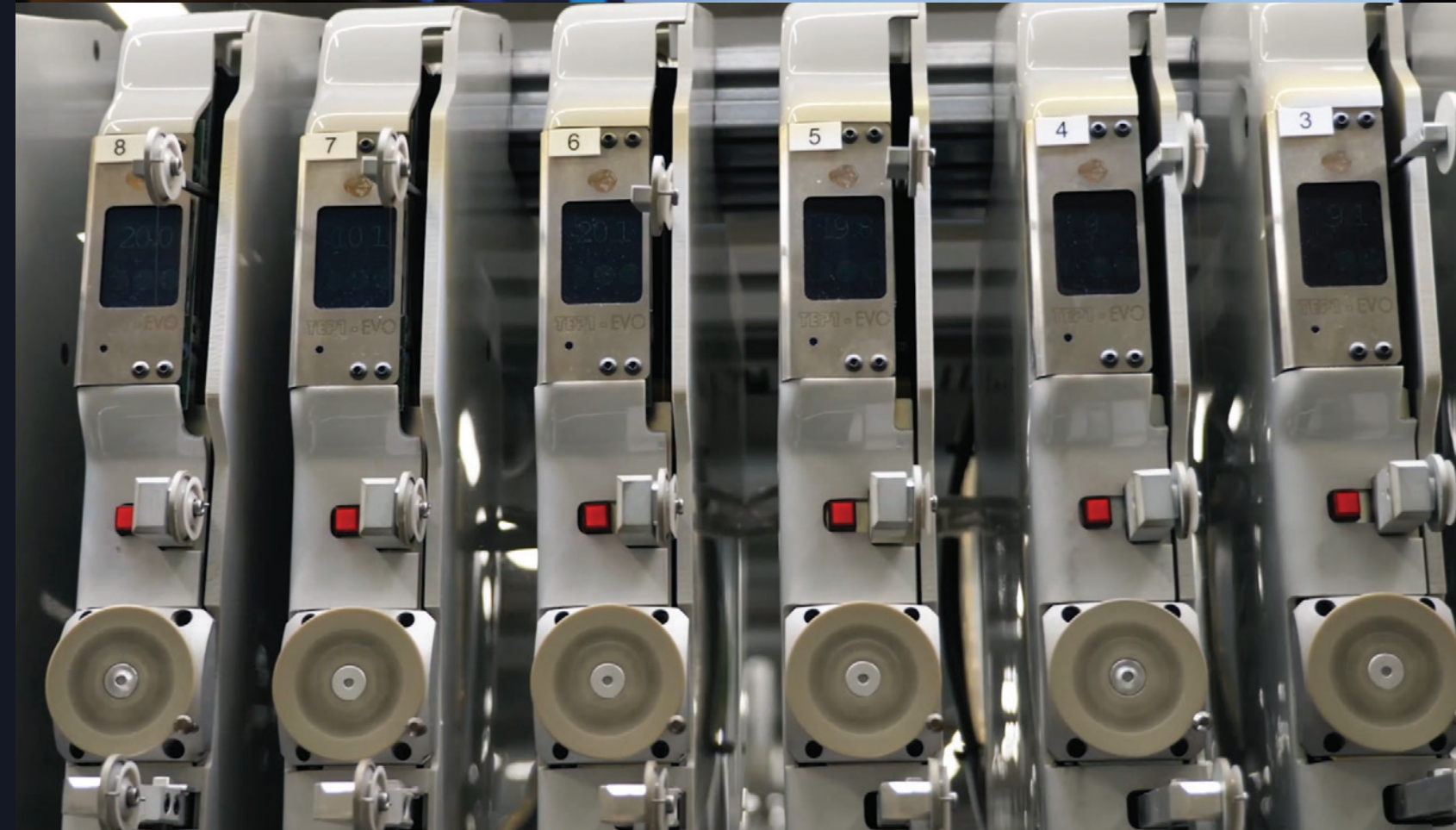
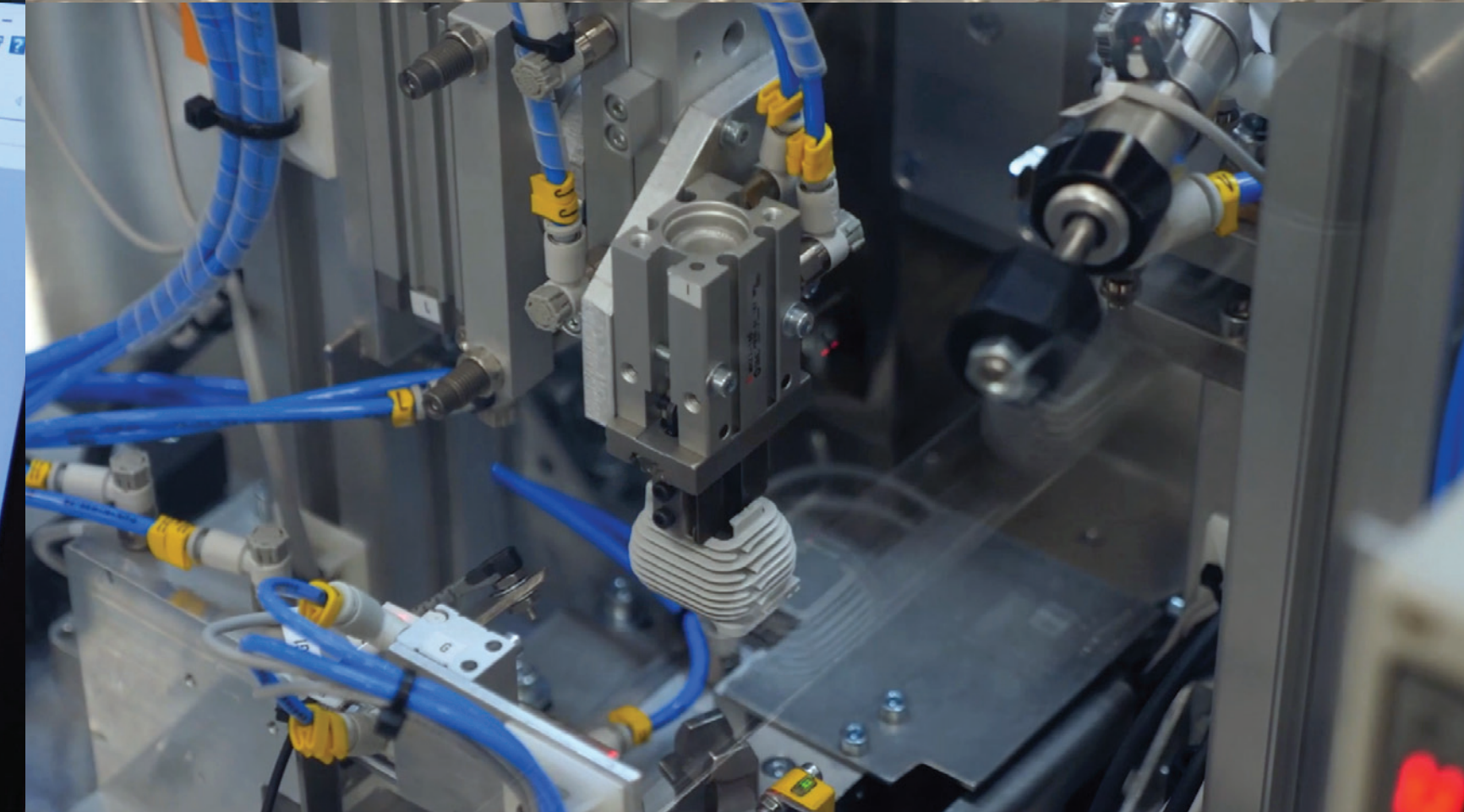
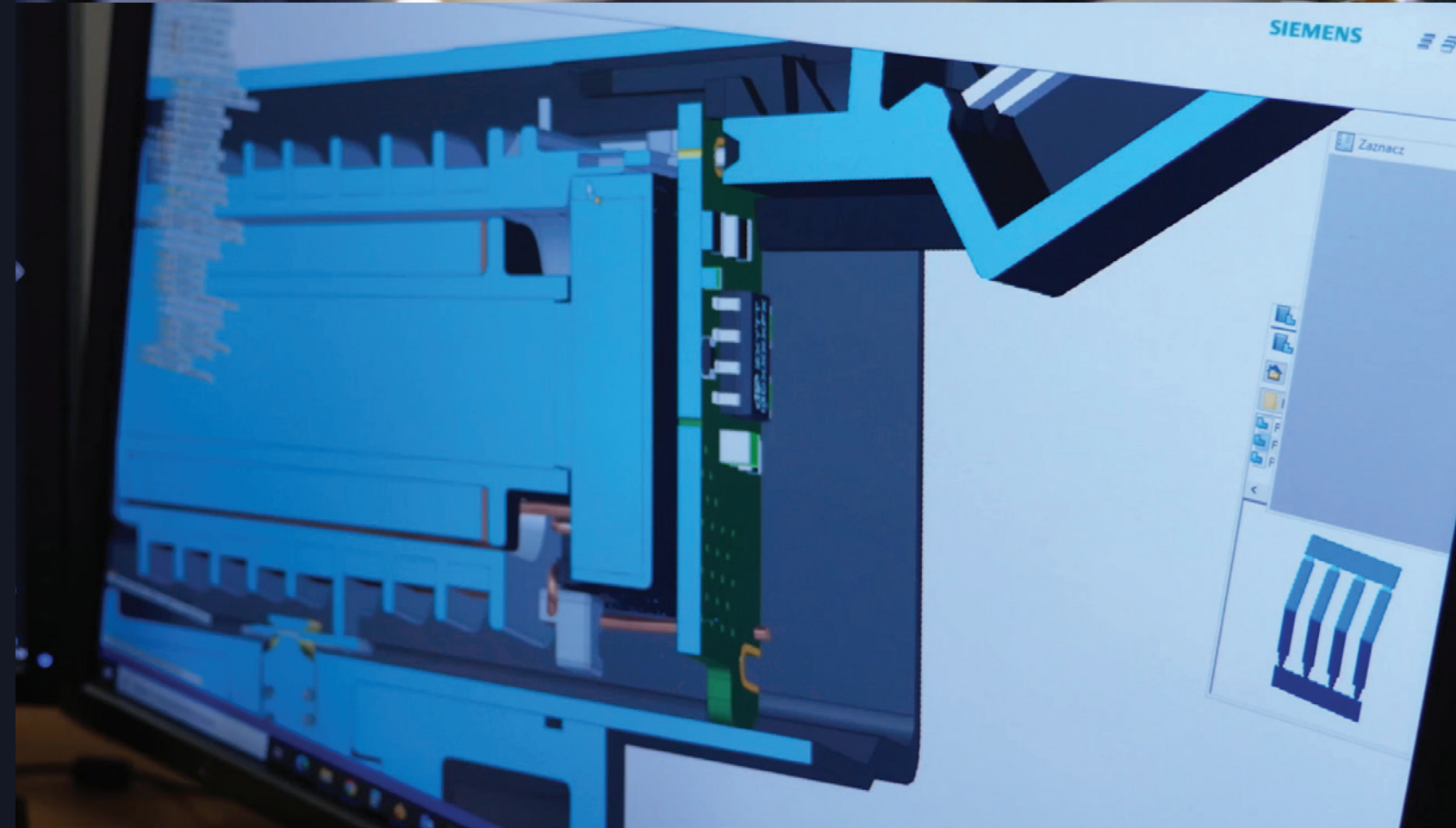
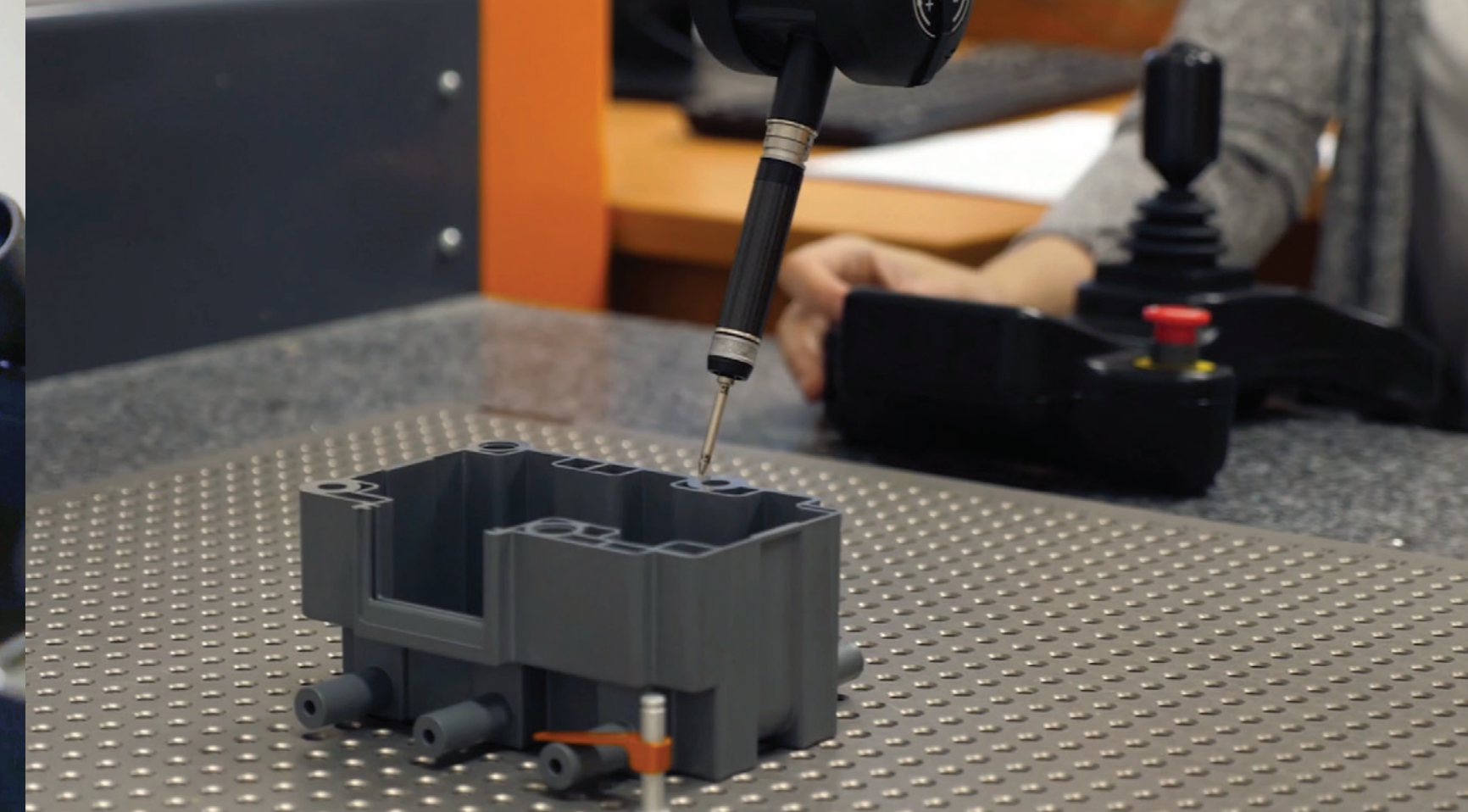


**STANDARD® IGNITION  
COMPONENTS**

# Manufacturing

Standard® engineers and manufactures more than 6 million high-quality Ignition Coils and components at our 60,000 sq-ft facility in Bialystok, Poland every year.

Highlights of the IATF 16949 and ISO 9001-certified facility include lean manufacturing methods and vertically integrated manufacturing processes that include multi-spindle winding, injection molding, potting, curing, and welding.





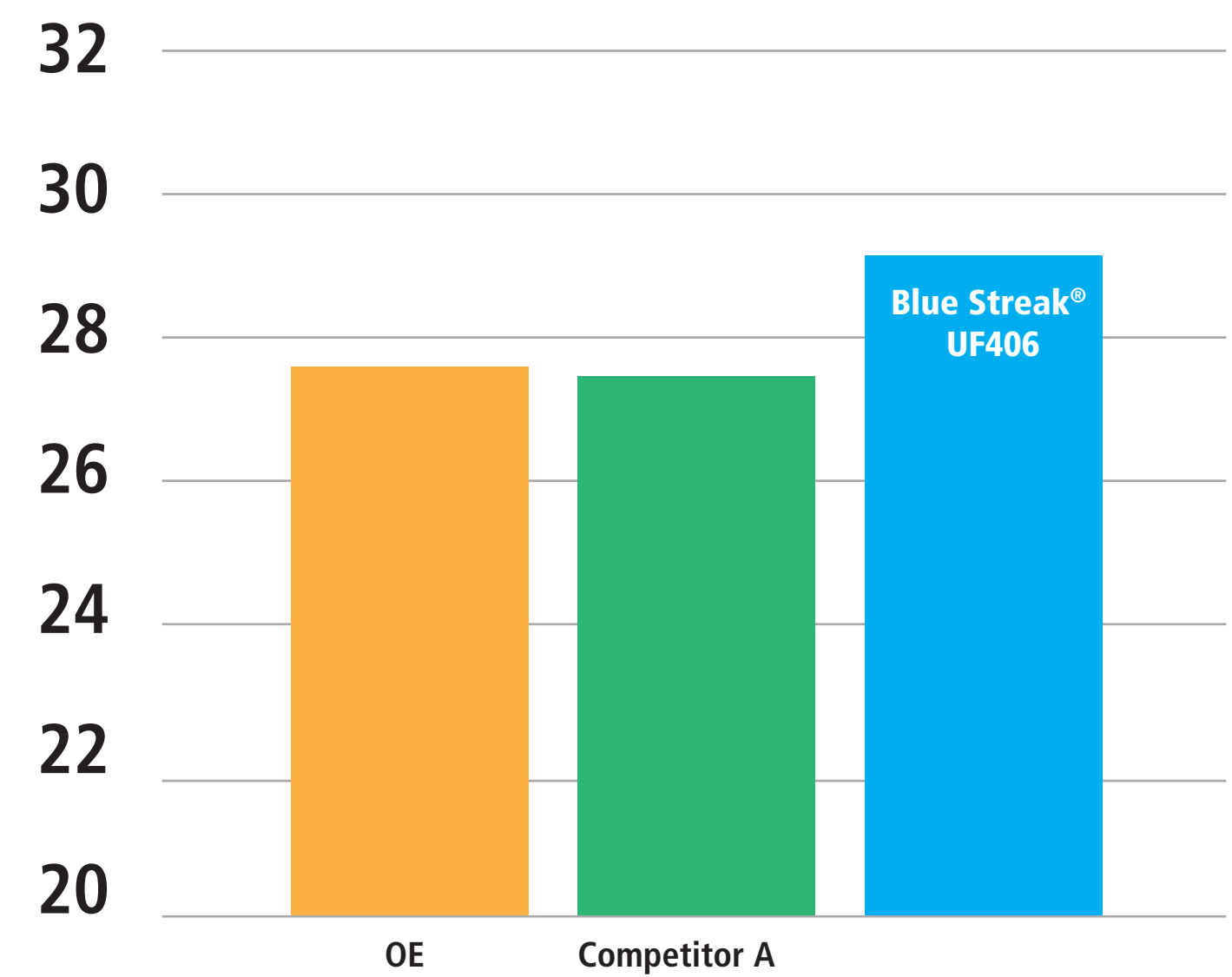
**STANDARD® IGNITION  
COMPONENTS**

# Testing and Validation

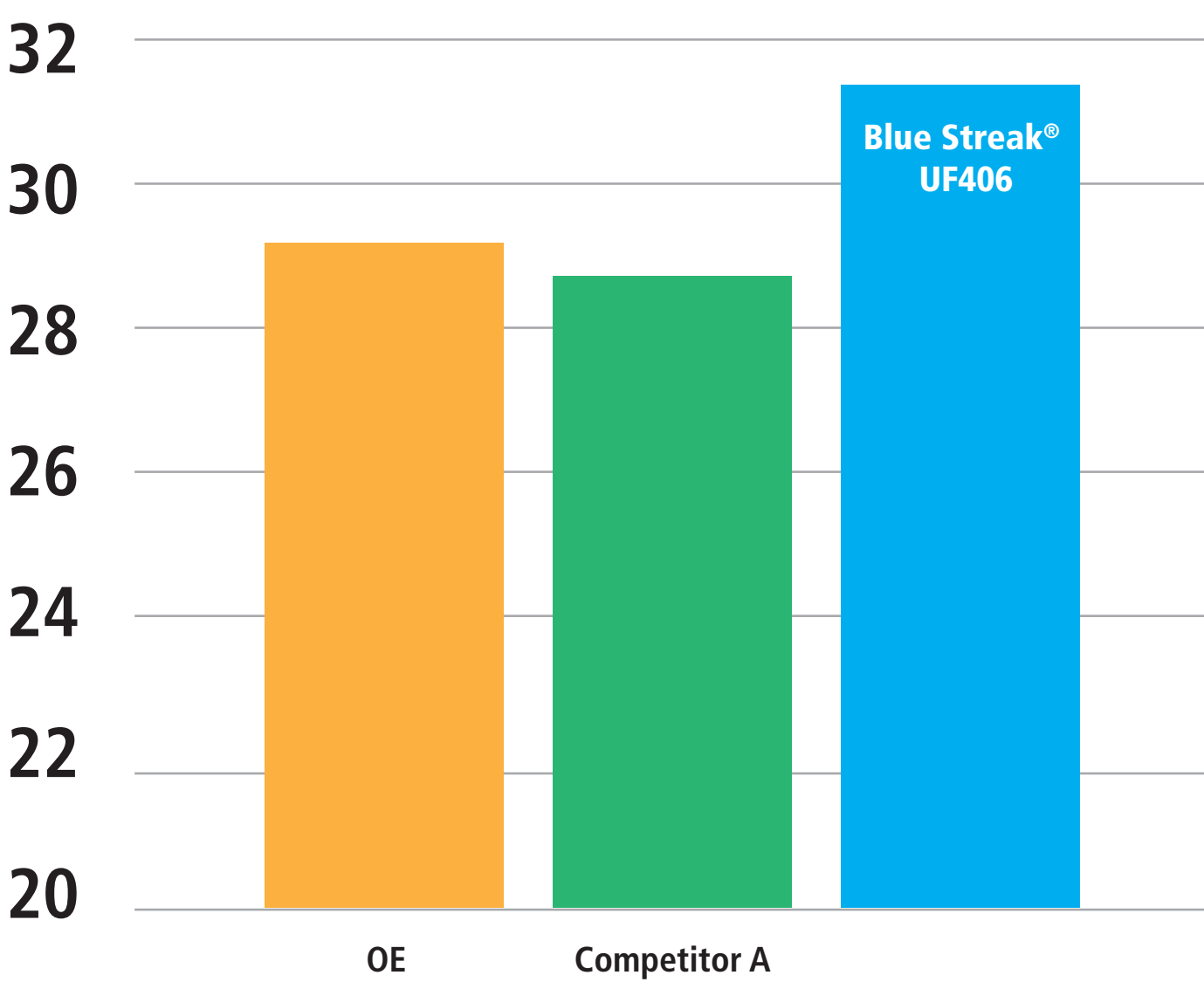
To ensure quality, all products manufactured at the SMP Poland facility undergo a full spectrum of measurement and life testing in addition to a full range of environmental analysis that includes thermal shock, thermal cycling, salt spray, vibration, and storage tests.

The result is a line of premium Ignition components that perform flawlessly and stand up to real-life conditions.

Secondary Voltage [kV]



Spark Energy [mJ]



The Blue Streak® FD503 features a secondary voltage rating that is 5% higher than OE. This Coil also has a higher discharger current, as well as 7% higher spark energy than OE.



**STANDARD® IGNITION  
COMPONENTS**

# Standard® Pro Training Tech Tip

As experienced ASE-certified automotive technicians themselves, Standard® Pro Trainers are experts in Ignition System technology.

Here's what they say to look out for during an ignition coil install.



**When replacing a faulty ignition coil, make sure that the driver in the PCM has not been damaged by a shorted coil - This is especially prevalent in Ford 2-wire coils**



**If an intake plenum needs to be removed to access an ignition coil, do your customer a favor and replace all the ignition coils on that bank at the same time**



**When replacing an ignition coil, replace all the secondary ignition components (plugs, boots, wires) as well**

**STANDARD® IGNITION  
COMPONENTS**

# 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 ADA-compliant YouTube professional installation video library has over 40 million views and 50,000+ channel subscribers.



For information  
on diagnosing and  
replacing Ignition Coils,  
search "coils" on the  
StandardBrand  
YouTube channel



## Available Classes

**Diagnosing Ignition Problems**

**Automotive Ignition  
Fundamentals**

**Misfire Diagnostics 101**

**Misfire Diagnostics 102**



## **IN-PERSON TRAINING**



## Available Classes

**Misfire Diagnosis**

**Lab Scope Power User**

**Ignition System and Cam/Crank  
Synchronization**

**Powertrain Electronics**

**Visit [StandardBrandTraining.com](https://StandardBrandTraining.com)**