### **BLUE STREAK® BRAND** Highlights



Blue Streak<sup>®</sup> gives technicians more — more durability over the OE design and more parts in the box to do the job right



Blue Streak<sup>®</sup> delivers complete service solution kits, including Variable Valve Timing Kits, Blower Motor Resistor Kits, and Cam Sensor Kits



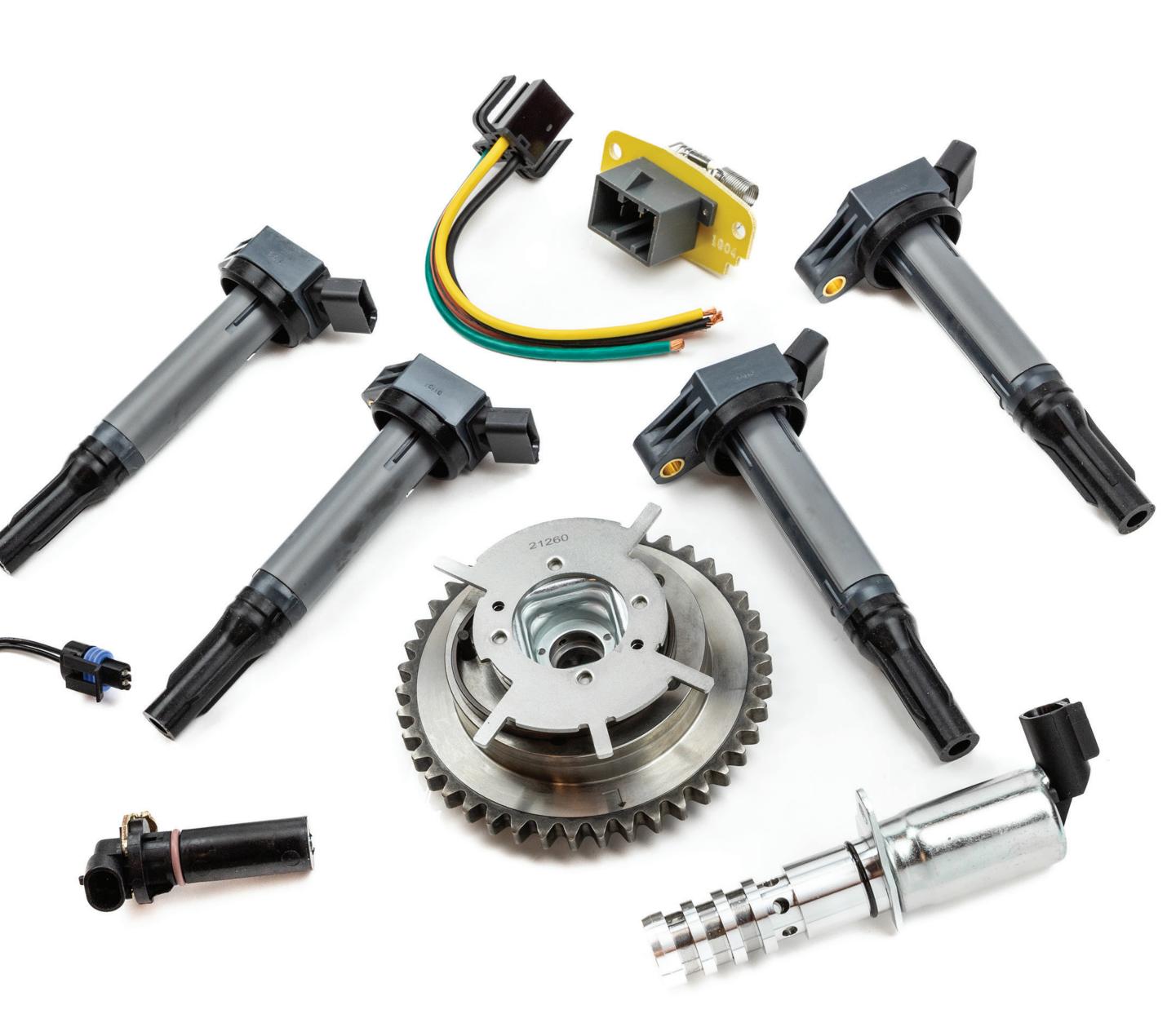
All Blue Streak<sup>®</sup> parts are backed by our Limited Lifetime Warranty



### What's in your box?™



Made to stand the test of time<sup>®</sup>



# The Blue Streak® Story

Made to stand the test of time, Blue Streak<sup>®</sup> by Standard<sup>®</sup> has always been known for quality and durability. Now, nearly 90 years young, the Blue Streak<sup>®</sup> brand is still the benchmark against which all other aftermarket brands are measured.

We're so confident in the durability of our Blue Streak<sup>®</sup> products, we've backed every part with our Limited Lifetime Warranty





Made to stand the test of time®

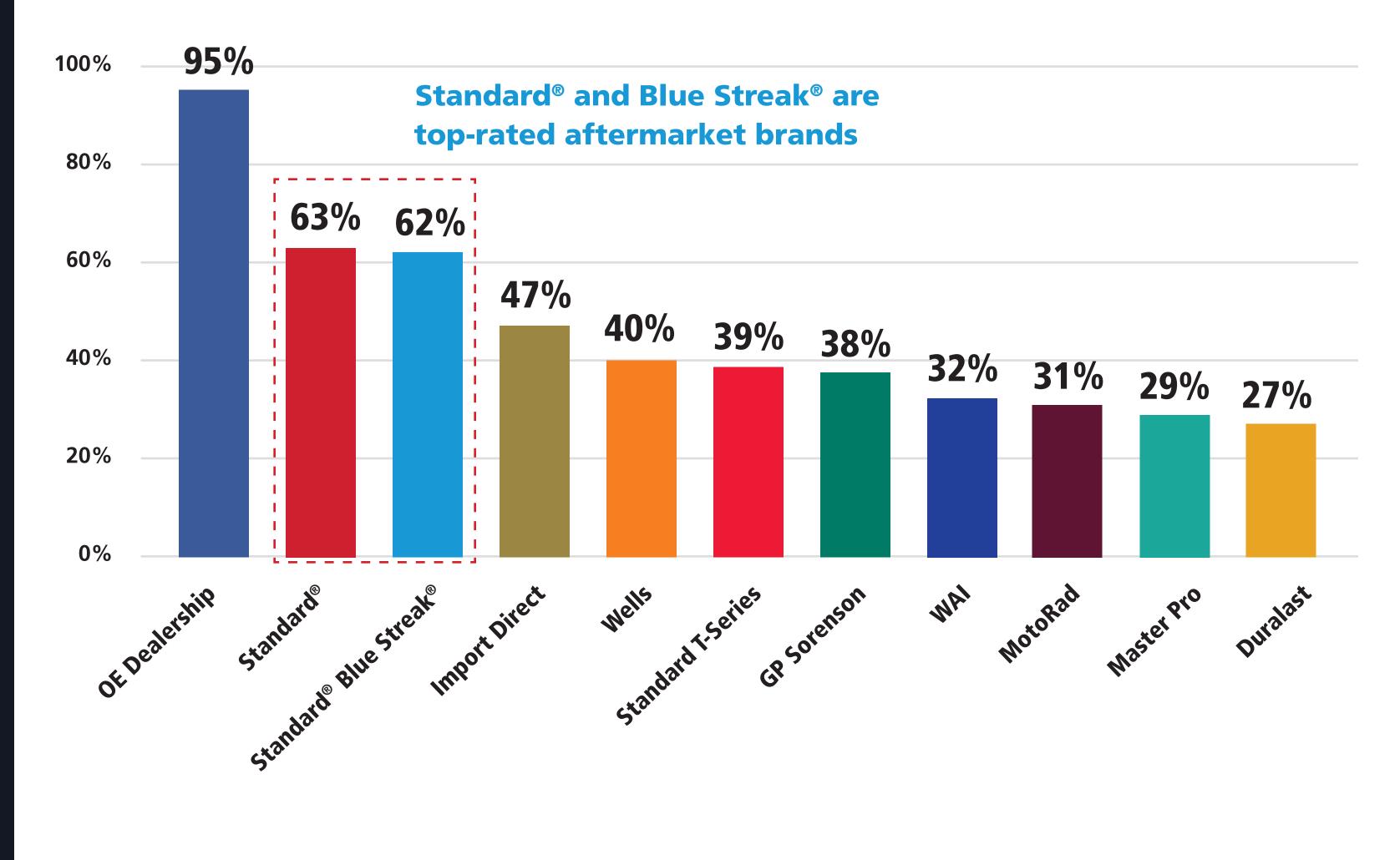


We're so proud of our quality, we laser etch all Blue Streak<sup>®</sup> Ignition Coils with the prestigious Blue Streak<sup>®</sup> logo



### Brand Preference

The professional automotive technicians' choice since 1934, techs today still consider Standard® Blue Streak<sup>®</sup> their top-rated aftermarket brand, unsurpassed for quality, performance and service life.



Source: Online Survey, Auto Service Professional, February 2021



Made to stand the test of time®

### **Technician Brand Quality Survey**

### Key Categories

Today's Blue Streak<sup>®</sup> program includes our legacy products, Heavier-Duty Ignition Coils, enhanced VVT components, Blower Motor Resistor Kits with a problem-solving high-temp connector – and we've recently added several new solution kit categories with more to come.



#### **Heavier-Duty Ignition Coils**

Heavier-Duty Coils that overcome the OE flaws for better performance and longer service life – import and domestic



#### **VVT Solenoids & Sprockets**

VVT Solenoids and Sprockets feature design improvements to deliver superior operation



#### **Blower Motor Resistor Kits**

**Direct-fit Blower Motor Resistor and** problem-solving hi-temp connector that withstands extreme temperatures







#### **Heavier-Duty Coil Kits**

Popular Ignition Coils are available in multi-packs for a complete coil service – import and domestic



#### **VVT Solenoid Kits**

Kit includes two new premium Solenoids with quality O-rings and gaskets to help prevent oil leaks



#### **Camshaft Sensor Kits**

**Kits include premium Cam Sensors** along with needed connectors to replace worn or damaged originals



#### **Direct Injection High-Pressure Fuel Pump Kits**

Kits include everything needed for a complete repair — high-pressure fuel pump, seal, camshaft follower, and gasket



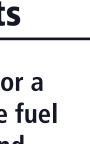
#### **VVT Service Kits**

**Everything needed for a complete job** - solenoids, sprockets, timing chain, guide, tensioner, arm, seals, crankshaft wheel, and gaskets



#### **Crankshaft Sensor Kits**

Kits include high-quality Crankshaft Sensor and a direct-replacement connector for a complete repair solution









# Sales Opportunity

Our engineers discovered that too much energy was passing through each section of the OE coil, creating too much heat, and causing premature coil failure. They designed a Coil with an additional bobbin section, resulting in less heat and a longer service life. The updated Blue Streak<sup>®</sup> Coils outperform and outlast the OE design.

Blue Streak<sup>®</sup> multi-packs make it easier for technicians to solve a known problem once and for all.

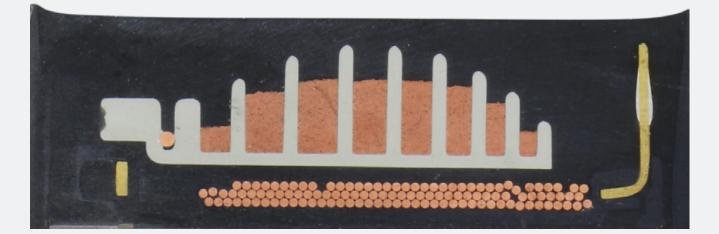
### **Problem:**

Ignition coils on 2020-02 Nissan & Infiniti 3.5L V6s are susceptible to premature failure due to excessive heat

### **Solution:**

Blue Streak<sup>®</sup> engineers designed a Coil that addresses OE weak points and includes additional bobbin sections, resulting in less heat produced and a longer service life.





**Produces 30kV with 8 sections** 

Over 4kV is pushed through each section

#### The Blue Streak® UF349K6 has 9 Bobbin Sections



**Produces 30kV with 9 sections** 

Only 3.3kV is pushed through each bobbin section

### What's New

Variable Valve Timing (VVT) technology is on nearly every vehicle and there's no reason to go "back to the dealer" for VVT replacement parts.

Blue Streak<sup>®</sup> is committed to expanding its line of upgraded VVT Solenoids and Sprockets including coverage for import vehicles. Standard<sup>®</sup> VVT components with product upgrades will continue to move to the Blue Streak<sup>®</sup> line.

For the most recent applications, check the online catalog at StandardBlueStreak.com.



**VVT121 VVT Solenoid** Hyundai / Kia 2.0L, 2.4L (2020-10) **VIO: 3.8M** 





Made to stand the test of time®





**VVT143 VVT Solenoid** Nissan 2.5L (2020-13) VIO: 3.5M

**VVT319 VVT Position Sensor Magnet** Chrysler, Dodge, Jeep, RAM 3.0L, 3.6L (2022-11) **VIO: 6.9M** 









### What's New

Blue Streak<sup>®</sup> created this high-quality, all-in-one solution for servicing highpressure fuel pumps.

Blue Streak<sup>®</sup> Kits include everything needed for a complete repair high-pressure fuel pump, O-ring, camshaft follower, and gasket.

#### **GDP204K** includes the following:

- High-Pressure Fuel Pump
- Camshaft Follower
- Fuel Pump O-ring
- Fuel Pump Mounting Gasket





**Direct-Injection High-Pressure Fuel Pump Kit** 

### **Direct Injection High-Pressure Fuel Pump Kit**





### **Multi-Pack Coil Kits**

Many of the heavier-duty, longer-lasting Ignition Coils technicians trust from Blue Streak<sup>®</sup> are now available in popular Multi-Pack Kits.

We've identified several OE coils with high failure rates and recommend replacing them in sets.

For the most recent applications, check the online catalog at StandardBlueStreak.com.



**UF333K4 OE Improved Ignition Coil Kit** Toyota 2.4L (2013-06) **VIO: 1.4M** 





Made to stand the test of time®

**UF487K6 OE Improved Ignition Coil Kit** Toyota / Lexus 2.5L, 2.7L, 3.5L, 4.0L (2019-05) **VIO: 7.8M** 

**UF596K4 OE Improved Ignition Coil Kit** Toyota / Lexus / Scion 1.8L (2019-08)**VIO: 4.6M** 







# The Kits Keep Coming

VVT Solenoid Kits, Blower Motor Resistor Kits and Camshaft Sensor Kits — Blue Streak<sup>®</sup> continues to release kits across numerous categories to help technicians do the job right.

For the most recent applications, check the online catalog at StandardBlueStreak.com.



**VVT2000K VVT Solenoid Kit** GM 4 Cyl. (2017-06) **VIO: 3.8M** 





Made to stand the test of time<sup>®</sup>

**VVT2001K VVT Solenoid Kit** Toyota / Lexus 6 Cyl. (2010-99) **VIO: 2.1M** 

**PC123K Crankshaft Sensor Kit GM Trucks & SUVs** (2007-94) **VIO: 3.8M** 









# **Top Movers: VVT Solenoids**





**VVT156** Lexus / Toyota Cars & SUVs (2010-99)



### DOMESTIC APPLICATIONS



**VVT198 GM** Cars (2017-06)





**VVT Solenoids** 



# **Top Movers: Ignition Coils**

### APPLICATIONS



**UF549** Nissan / Infiniti Cars, Trucks & SUVs (2021-07)



**UF575** Audi / VW Cars & SUVs (2019-04)

### DOMESTIC APPLICATIONS



FD503 Ford Cars, Trucks & SUVs (2019-97)

**Ignition Coils** 



**UF648** Chrysler, Dodge, Jeep, RAM Cars, Trucks & SUVs (2021-11)





**UF596** Toyota / Lexus Cars & SUVs (2021-08)



**UF349** Nissan / Infiniti Cars, Trucks & SUVs (2021-01)





**UF270** Chrysler, Dodge, Jeep Trucks & SUVs (2008-99)



FD508 Ford Cars, Trucks & SUVs (2009-04)



(2022-05)



### **Top Movers: BMR Kits**



**RU51HTK** GM Trucks & Vans (2018-96)





RU404HTK Ford Trucks & SUVs (2013-95)



RU445HTK Ford Trucks & Vans (2018-75)





**Blower Motor Resistor Kits** 





RU363HTK **GM Cars & Trucks** (2008-03)



RU380HTK Chrysler, Dodge, Jeep Cars, Trucks & SUVs (2010-01)



RU376HTK **GM Cars** (2012-04)



RU496HTK **GM Cars** (2005-96)



# **Top Movers: Crankshaft / Camshaft Sensor Kits**

### CRANKSHAFT SENSOR KITS



**PC123K GM Trucks & SUVs** (2007-94)



**PC243K** Chrysler, Dodge, Jeep Cars, Trucks & SUVs (2007-00)

### CAMSHAFT SENSOR KITS



**PC273K GM Cars, Trucks & SUVs** (2007-99)



**PC460K** Nissan / Infiniti Cars & SUVs (2018-02)



**Camshaft and Crankshaft Sensor Kits** 







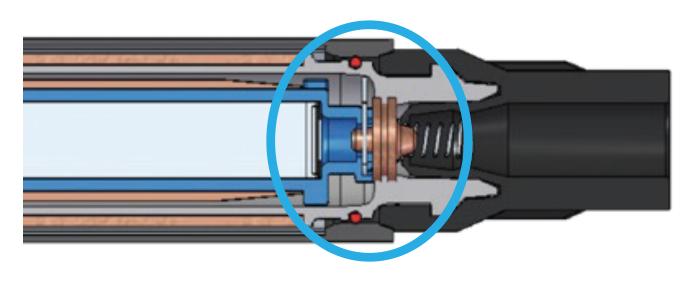
# Engineering Improvements

Heat, moisture and corrosion are typical reasons that OE coils fail, and many OE designs can have unforeseen weak points that lead to product failure. That's why choosing a replacement coil that's the same as the one that just failed doesn't make sense.

Blue Streak<sup>®</sup> engineers evaluate the original part, identify the OE issues, and correct those problems to deliver a better-performing and longer-lasting Coil.

### **Blue Streak<sup>®</sup> Makes Improvements to OE Pencil Coils**

**OE Design Flaw – O-Ring Design** 



When the OE O-ring breaks down, it allows moisture intrusion, which impedes performance and shortens coil life

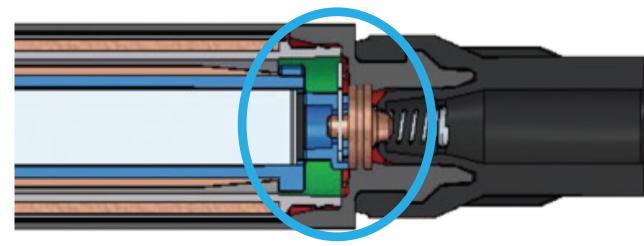
As the results show, we've designed our Blue Streak<sup>®</sup> Ignition Coils for superior performance and durability under the harshest conditions.



**Heavier-Duty Coils** 

**OE** has moisture intrusion

**Blue Streak® Solution – Eliminate O-Ring Housing** 



**Blue Streak<sup>®</sup> has no moisture intrusion** 

Blue Streak<sup>®</sup> 1-piece design with no O-ring housing prevents moisture intrusion for optimal performance and long service life

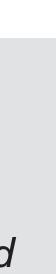
Source: SMP Poland Testing Lab

— Tomasz Michalik Technical Director, SMP Poland











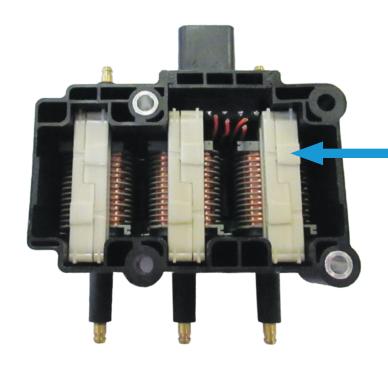
# Engineering Improvements

Another common reason OE coils fail is epoxy cracking due to flawed design and manufacturing process.

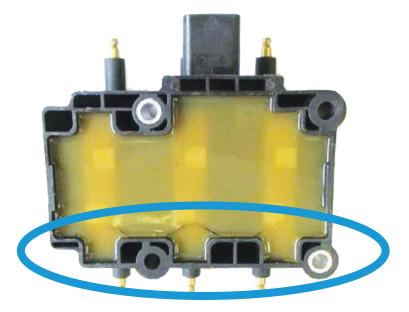
Blue Streak<sup>®</sup> Coils use high-dielectric epoxy injected in a vacuum to eliminate air pockets and prevent moisture intrusion.

We've gone one step further by replacing the problematic OE cover with an overmolded iron core, to ensure coil integrity and performance.

### **Blue Streak<sup>®</sup> Solves OE Epoxy Cracking Issue**



The OE polypropylene on steel core leads to epoxy cracking, moisture intrusion, degraded performance and eventual coil failure



**OE epoxy cracks after** temperature test

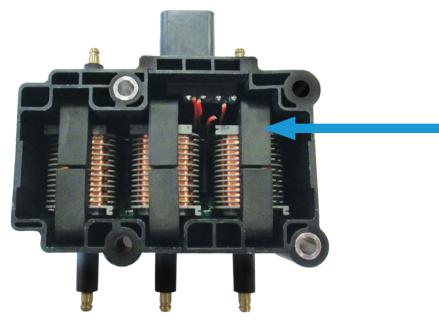
Source: SMP Poland Testing Lab



#### **OE Design Flaw – Polypropylene Cover**

#### **Blue Streak® Solution – Elastomer Overmold**





The Blue Streak<sup>®</sup> design overmolds the iron core with TPE elastomer, preserving coil integrity





**Blue Streak® has no cracks** after temperature test

# Expert Manufacturing

Blue Streak<sup>®</sup> Ignition Coils are designed and manufactured at our IATF 16949-certified facility in Bialystok, Poland.

Spanning 145,000 square feet, our most advanced facility has more than 750 employees including 60+ resident engineers.

At this plant we manufacture more than 6 million Ignition Coils each year and introduce 110+ new products annually.





**Heavier-Duty Coils** 

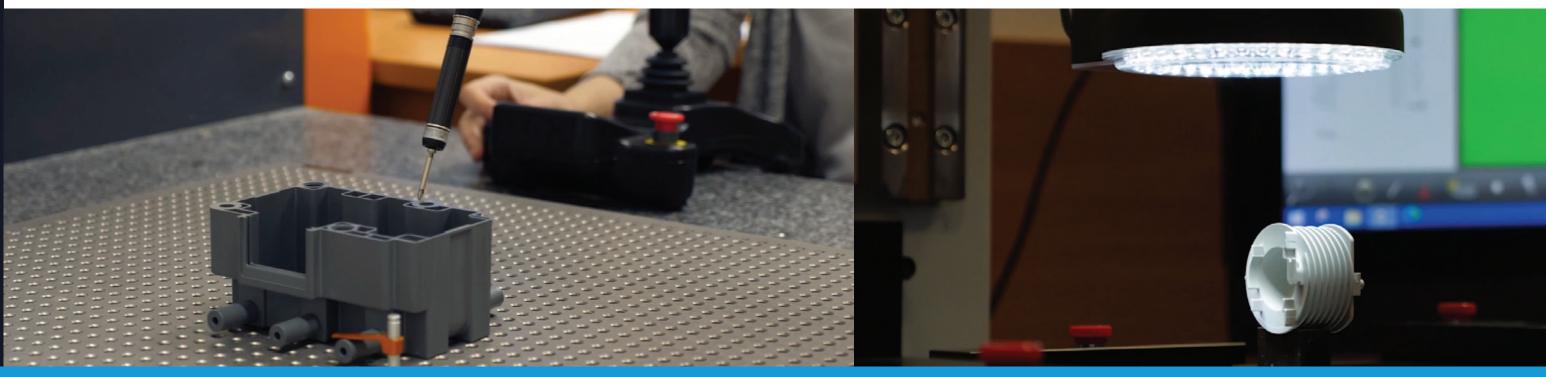
### Testing and Validation

All Blue Streak<sup>®</sup> Ignition Coils undergo extensive testing, including environmental, thermal shock, thermal cycling, and vibration tests.

Check out the typical test results as Blue Streak<sup>®</sup> UF502 goes up against the OE and OE Aftermarket coils.

39.00	
38.00	
37.00	
36.00	OE/Deal
35.00	
34.00	
33.00	
32.00	
31.00	
30.00	
29.00	
28.00	
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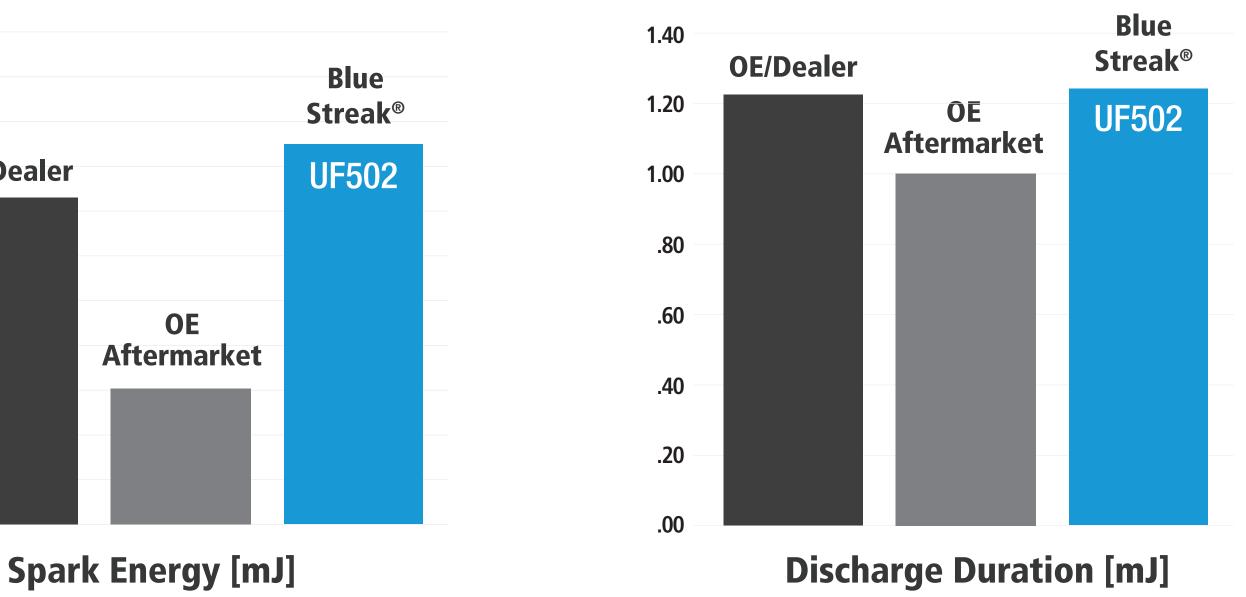
Blue Streak<sup>®</sup> Coils outperform the OE and OE Aftermarket coils with more spark energy and longer-lasting discharge to deliver improved performance and fuel economy.





**Heavier-Duty Coils** 

### **The Test Results Are In**



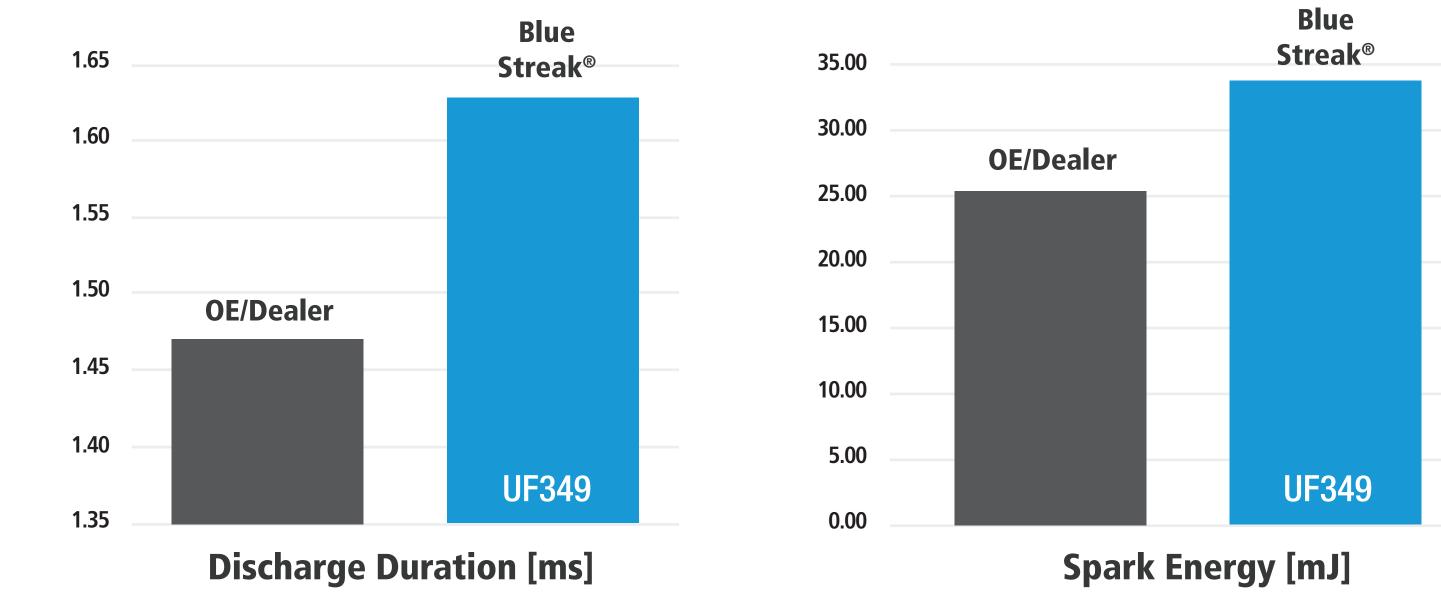
Source: SMP Poland Testing Lab



# Testing and Validation

After we engineer improvements into our Ignition Coils for import vehicles, we put these Coils through a rigorous testing regimen.

The result is an Import Coil that not only matches its replacement application perfectly, but outperforms the OE, producing more spark energy and longer-lasting discharge for better vehicle performance, fuel economy, and emissions.



In this test, the Blue Streak<sup>®</sup> Coil delivered typical results outperforming the OE. Blue Streak<sup>®</sup> UF349 produced 22% more spark energy with an 11% longer-lasting discharge.





### The Test Results Are In

Source: SMP Poland Testing Lab



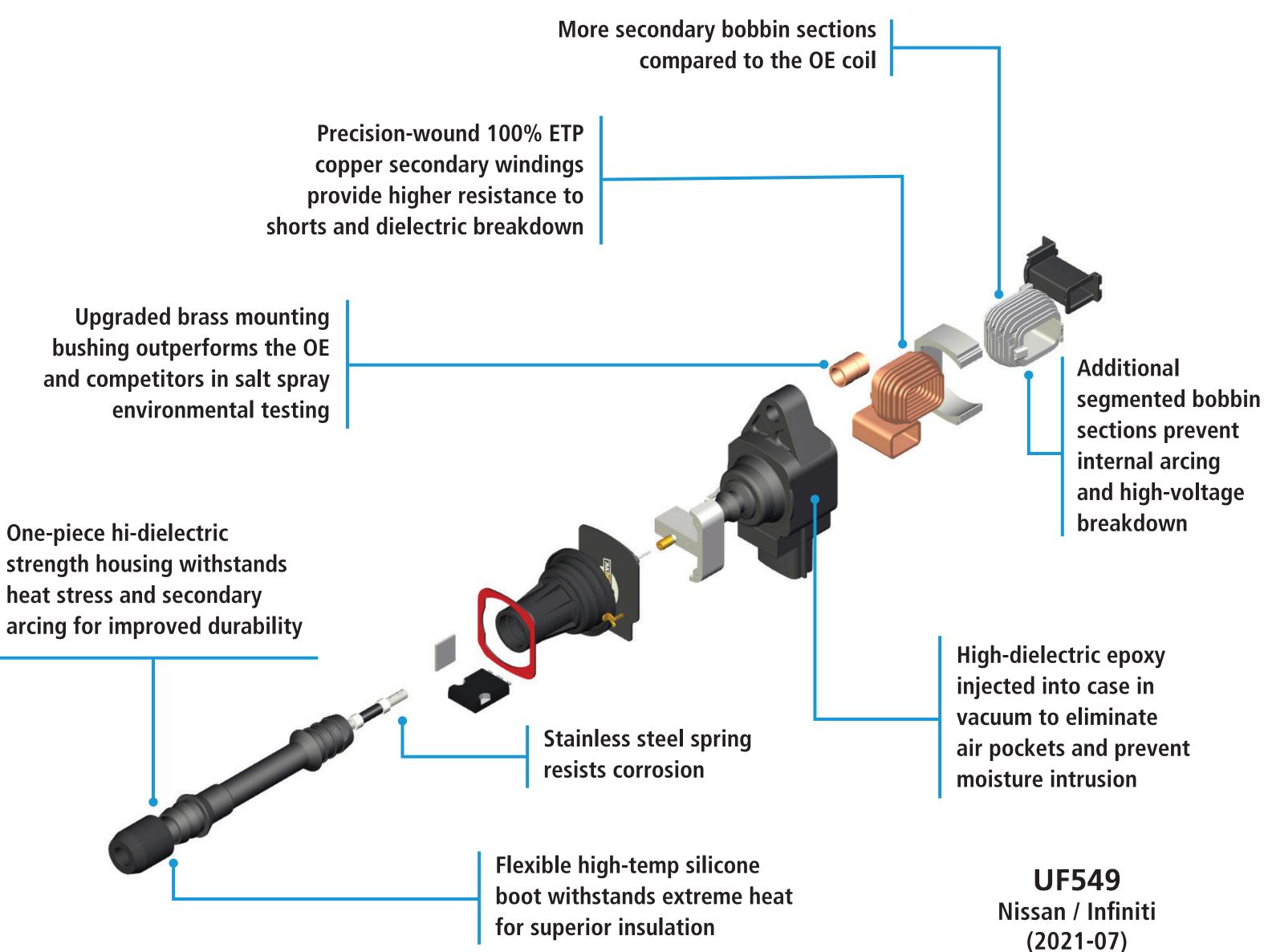
# Product Quality

A product of superior design, engineering and testing, Blue Streak<sup>®</sup> premium Import Coils feature numerous product upgrades and competitive benefits to deliver a more reliable, better-performing, and longerlasting Ignition Coil for import applications.

### **Did You Know**

Blue Streak<sup>®</sup> Heavier-Duty Coils are engineered and tested to match or exceed OE for spark energy, output, impedance and durability. In fact, our Coils are tested at extreme performance conditions running 7200 RPM.

**One-piece hi-dielectric** 

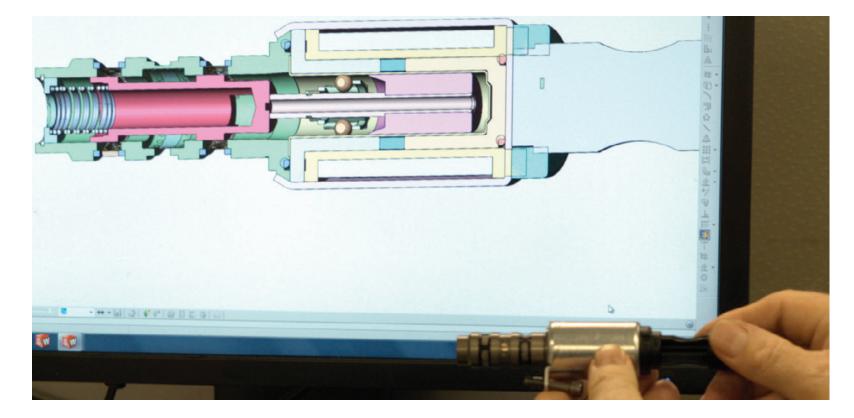




# Engineering, Manufacturing and Testing

Variable Valve Timing technology is found on nearly every new vehicle. VVT service and repair will continue to grow in the coming years.

Blue Streak's VVT line includes Sprockets, Solenoids and Kits. All of the components in the Blue Streak<sup>®</sup> VVT line feature upgrades, and each is extensively tested to ensure longer-lasting performance.







**VVT Components** 

### **Blue Streak® VVT Advantage: Our Meticulous Attention to Detail**



SMP Poland, with more than 60 resident engineers, serves as the advanced design and manufacturing center for Blue Streak<sup>®</sup> premium VVT Solenoids and Sprockets.





# Engineering Improvements

Blue Streak<sup>®</sup> VVT Sprockets meet the tightest tolerances to improve internal sealing, minimize oil drain, and deliver designed performance within the VVT system.

In fact, Blue Streak<sup>®</sup> VVT500 features an innovative integrated design and larger contact area with no paddles to wear out. The result is a betterperforming, longer-lasting Sprocket.

**VVT500** Ford / Lincoln / Mercury (2014-04)



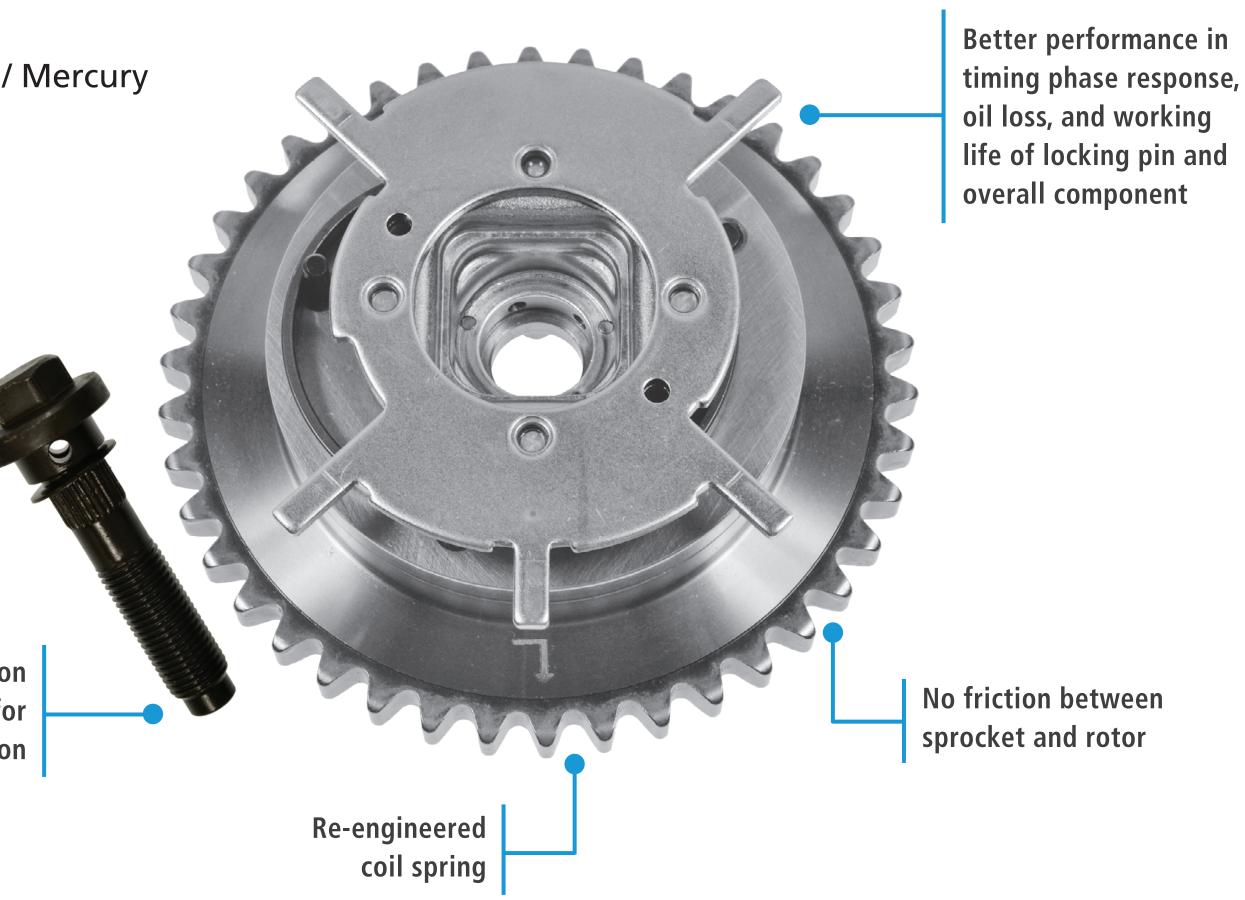
**OE-style installation** bolts included for ease of installation

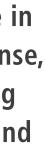
### **Did You Know**

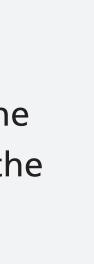
As part of a sophisticated system, the diameter of a replacement sprocket should match the original. Other aftermarket suppliers vary the diameter of their sprocket; this could alter the timing and stretch the timing chain.



**VVT Sprockets** 









# Product Quality

Blue Streak<sup>®</sup> VVT Solenoids feature improvements over the original, including hard anodized steel componentry, welded filters and welded screen reinforcement.

It's this attention to detail that ensures precision operation, correct on-vehicle performance and longer service life.

**Stainless steel** 

**High-quality** precision spring

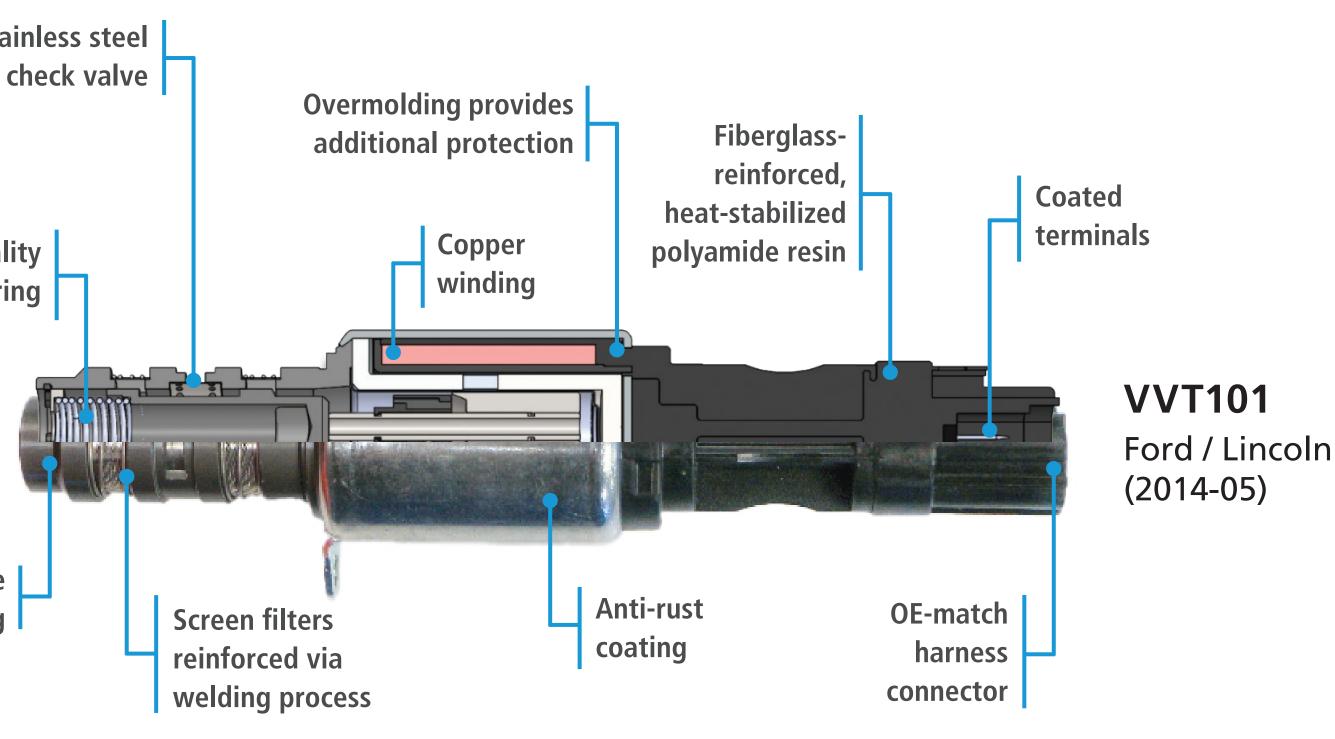
OE-match valve housing

**Did You Know** 

Blue Streak<sup>®</sup> Solenoids include the necessary hardware to help technicians complete a successful install.



**VVT Solenoids** 











# VVT Design Improvements

Blue Streak<sup>®</sup> VVT Solenoids features a stainless steel shaft for a durable and more reliable solution while the OE and competitors' units use other material prone to deforming and wear.

The **Blue Streak® VVT198** uses a stainless steel shaft, pressed all the way to the armature – this makes the shaft more durable for a reliable solution

**OE**: Thin formed metal sheet as a shaft – prone to deformation, thus change of valve characteristics

**Competitor 1**: Aluminum shaft – prone to wear and change of valve characteristics

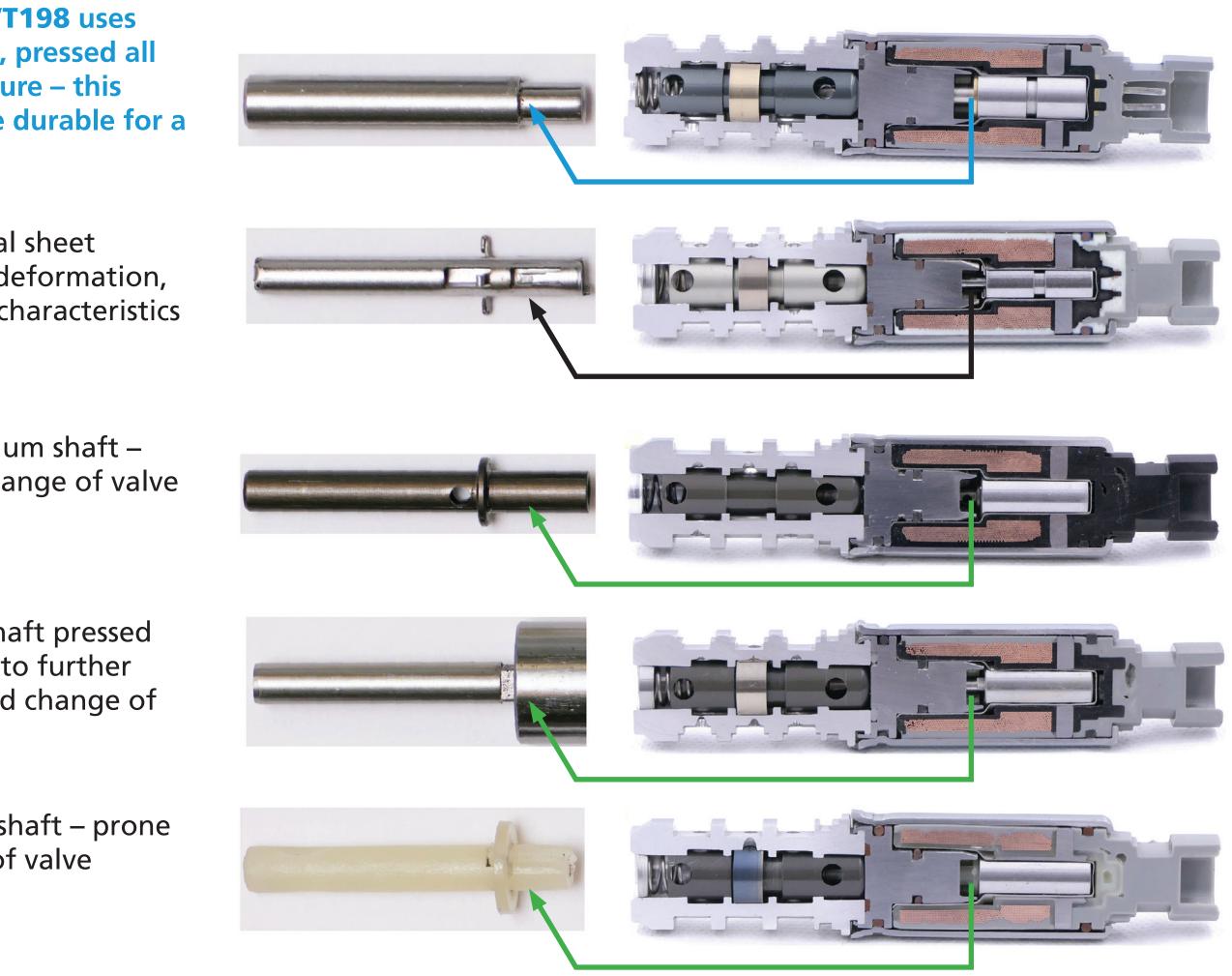
Competitor 2: Steel shaft pressed to a distance – prone to further pressing over time and change of valve characteristics

**Competitor 3**: Plastic shaft – prone to wear and change of valve characteristics



**VVT Solenoids** 

#### **Durable Shaft**

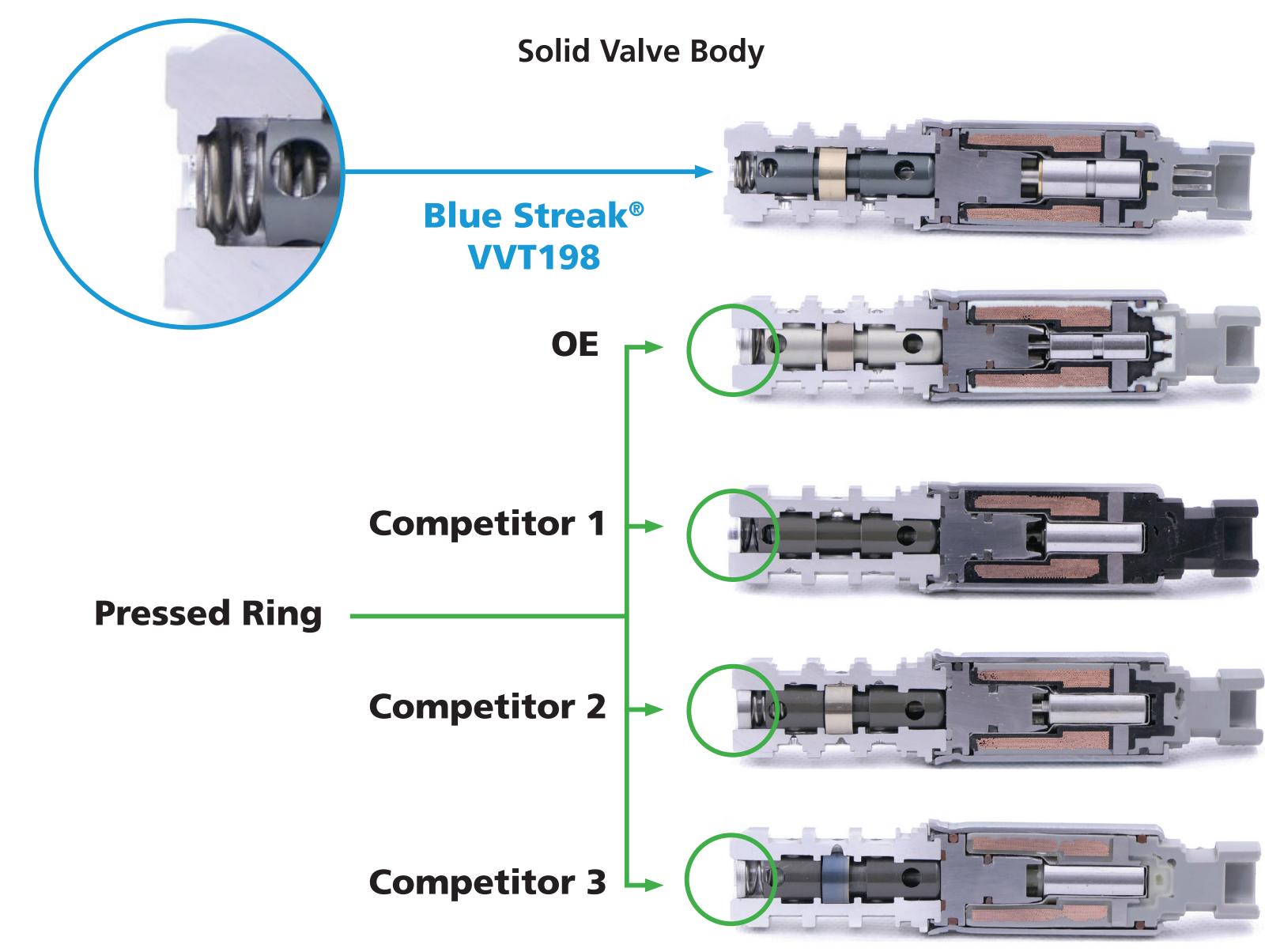




# VVT Design Improvements

The OE and competitors' VVT solenoids use pressed rings for spring support that can fall apart over time.

Blue Streak<sup>®</sup> VVT Solenoids feature a closed valve body for spring support, with no chance of falling apart, even after millions of valve switches.





**VVT Solenoids** 



# Product Quality

Blue Streak<sup>®</sup> has put together the highestquality Complete VVT Service Kit for high-OE-failure replacement opportunities. We also offer the best-performing VVT Solenoid Kits in the industry.

The Blue Streak<sup>®</sup> Kit line will be expanded throughout 2023. For the most up-to-date listings, visit StandardBlueStreak.com.

#### **VVT Kit Components**

- **1 VVT Sprockets**
- 2 VVT Solenoids
- 3 Timing Chain Tensioners
- 4 Timing Chains
- 5 Timing Chain Guides & Tensioner Arms



**Complete VVT Service Kits** 

#### Blue Streak<sup>®</sup> VVT420K is a Complete Timing Kit for the Ford 5.4L V8



- 6 Drive Gear Sprocket
- 7 Crankshaft Position Wheel
- 8 Crankshaft Seal
- 9 Gaskets



# Engineering Improvements

Blower motor resistors have high current running through them and the connector. This can damage the resistor and melt the original connector.

Blue Streak<sup>®</sup> designed a high-temp connector that withstands excessive heat and paired that with a premium, direct-fit resistor for a quality kit.

### The OE Problem: **Melted Connector**

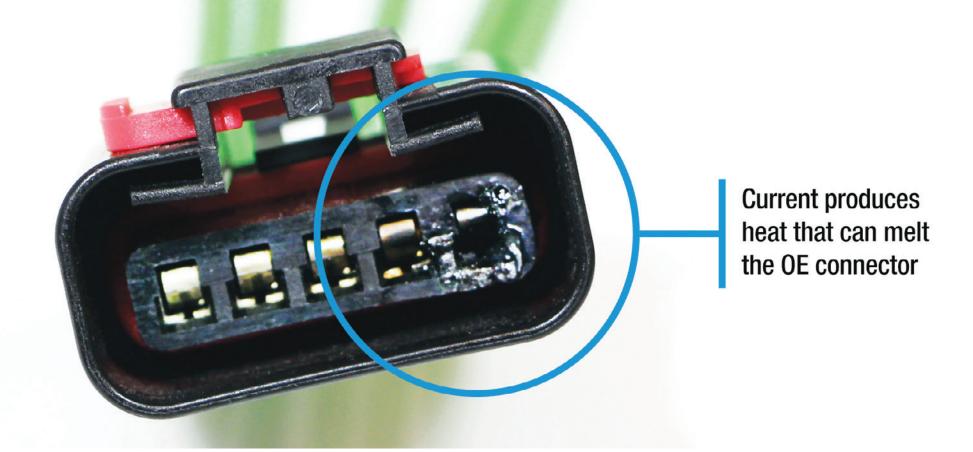
resistor coils for better fan control



Kanthal D resistor wire Thermal-cycle tested provides longer life for **TXL copper wiring** -22°F to 257°F higher watt resistors withstands high electric current to protect against **RU51HTK Precision-built** heat-related failure **GM** Trucks (2018-96) Thermally protected with on-board fuse **High-temp connector Tin-plated steel terminals** Made from high-quality prevents melting under ensure maximum contact ceramics with copper extreme temperatures and excellent fit electrical connectors for accurate resistance values

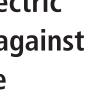


**Blower Motor Resistor Kits** 



### The Blue Streak<sup>®</sup> Solution: **High-Temp Blower Motor Resistor Connector Kits**





### Product Quality

Blue Streak<sup>®</sup> developed high-quality Crankshaft Sensor Kits to provide technicians with what they need to do the complete job.

Blue Streak<sup>®</sup> Kits contain premium Crankshaft Sensors along with a highquality electrical connector to replace the melted or damaged originals — Everything a technician needs to perform the repair.

We offer over 20 Crankshaft Sensor Kits, with more coming in 2023.

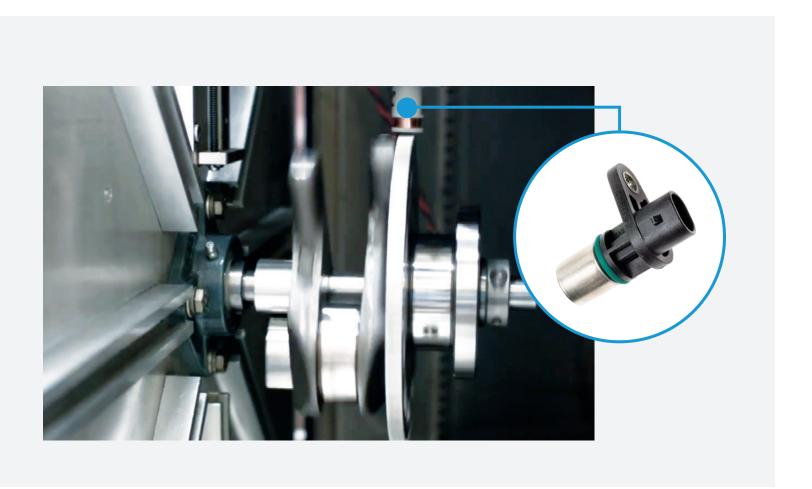


#### **Did You Know**

Blue Streak's Crankshaft Sensor Kits undergo chamber testing that cycles from -40 degrees to 257 degrees Fahrenheit. This testing is performed to ensure our Crank Sensors maintain accuracy during maximum temperature conditions.



#### **Blue Streak<sup>®</sup> Crankshaft Sensor Kits**







### Product Quality

Blue Streak<sup>®</sup> high-quality Camshaft Sensor Kits provide technicians with all of the parts needed to do the complete job right, every time.

Our enhanced Kits include two Blue Streak<sup>®</sup> Camshaft Sensors along with the high-quality connectors to replace the melted or damaged originals.

We offer over 20 Camshaft Sensor Kits, with more coming in 2023.



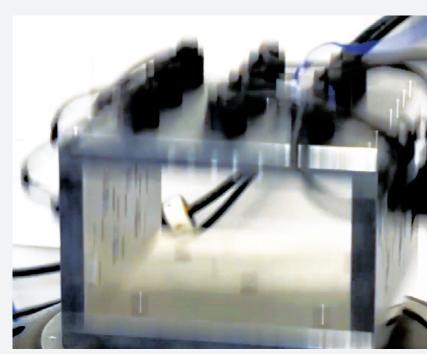
#### **Did You Know**

Blue Streak's Camshaft Sensor Kits undergo 48 to 68-hour vibration tests to ensure performance under the harshest conditions. Each sensor is subjected to end-of-line, timing, pulse width, and signal amplitude testing.



**Camshaft Sensor Kits** 

#### **Blue Streak<sup>®</sup> Camshaft Sensor Kits**









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

As experienced ASE-certified automotive technicians themselves, Standard<sup>®</sup> Pro Trainers are experts in the systems technologies covered by our Blue Streak<sup>®</sup> offering. Here's what they say to look out for.



Many times, the cam sensor and connector will become saturated with engine oil — If this is the case, the leak should be repaired and the connector replaced at the same time as the sensor(s)

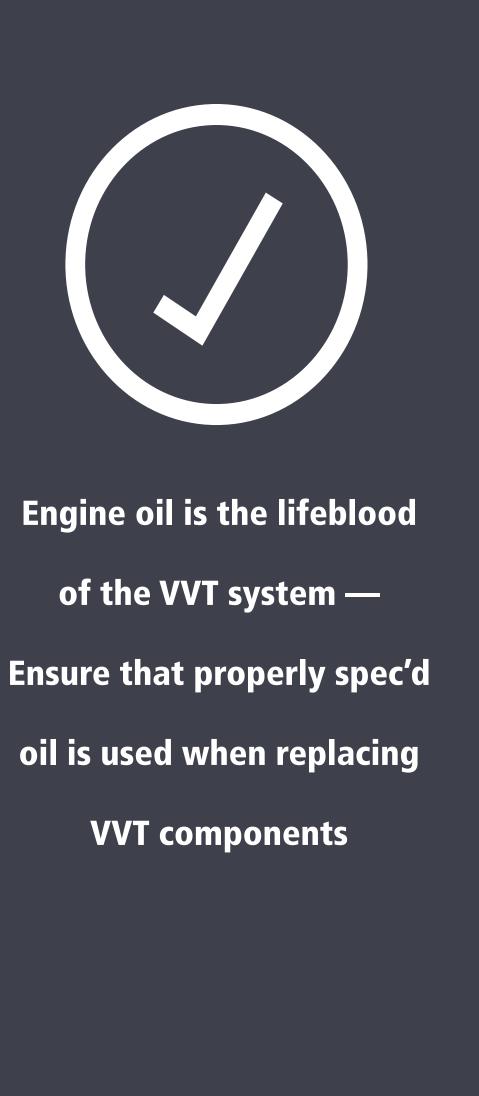


Made to stand the test of time®





**Blower motor resistors** typically burn out due to excessive electrical draw — Replace the blower motor, electrical connector, and cabin air filter along with the new resistor



# Standard® Professional Training

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

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

An extension of Standard<sup>®</sup> training, our extensive YouTube video library has over 500 technical and installation videos.





**Available Classes** 

**Automotive Ignition Fundamentals** 

Variable Valve Timing Tips and Tricks

**Diagnostic Brain Teasers** 

**Ignition Analysis** 

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Made to stand the test of time®

Misfire Diagnostic Tips; Nissan VVT **System Diagnosis** 

Variable Valve Timing



**Available Classes** 

Nissan / Infiniti Diagnosis

Misfire Diagnosis

**Ford Gas Vehicles** 

**Powertrain Electronics** 

Ignition Systems and Cam/Crank **Synchronization** 

Honda / Acura Diagnostics

For information on Blue Streak parts, search "Blue Streak" on the StandardBrand YouTube channel

