### **BLUE STREAK®**

1

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?<sup>™</sup> Here's what's in ours.





# 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, 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®

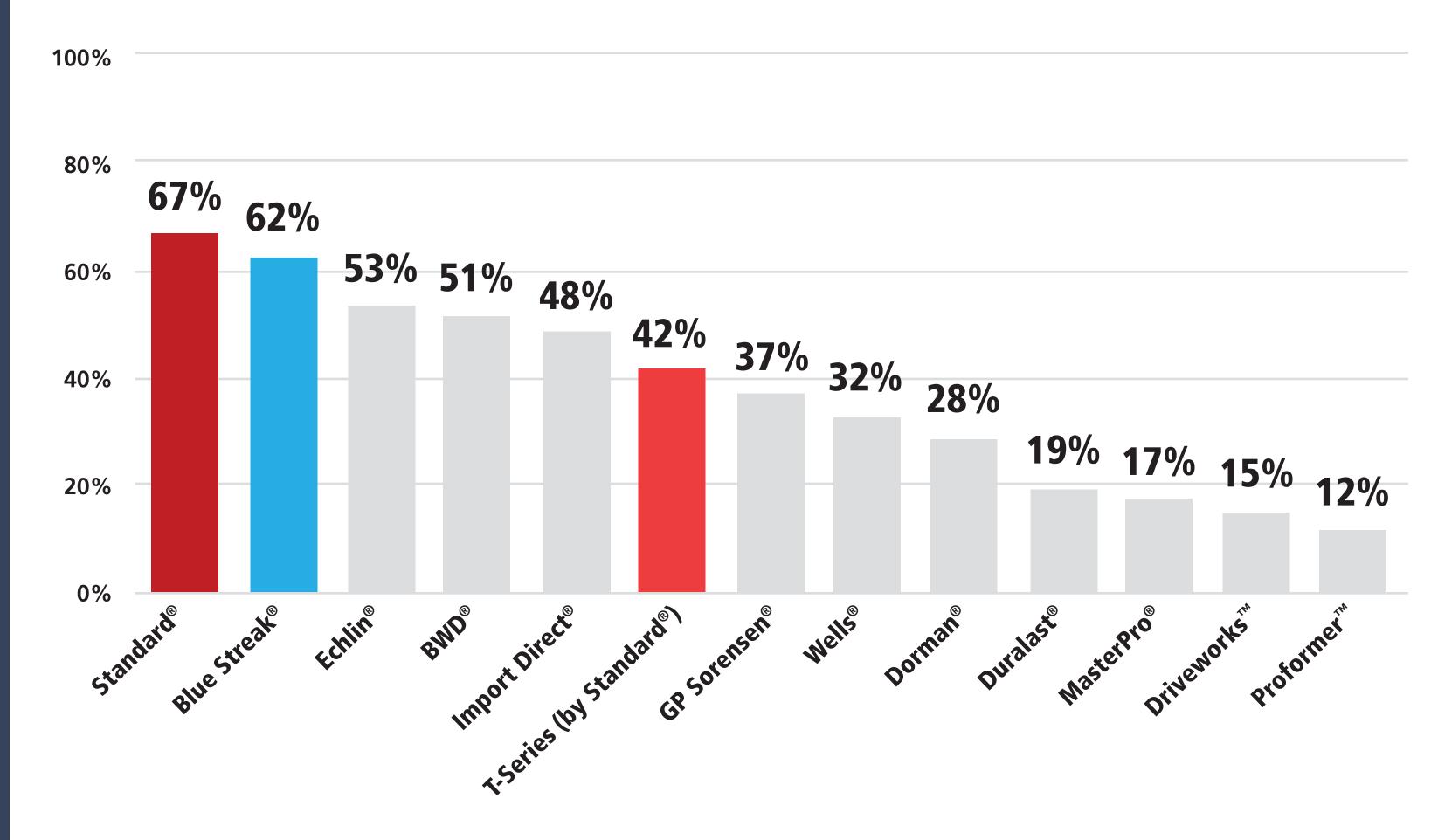


We're so proud of our quality, we laser etch all Blue Streak<sup>®</sup> Ignition Coils with the prestigious Blue Streak<sup>®</sup> logo



### Brand Preference

Year after year, Standard<sup>®</sup> and Blue Streak<sup>®</sup> continue to receive the highest quality scores from professional technicians. In a recent survey, technicians were asked to rate aftermarket engine management and vehicle control brands on quality. Standard<sup>®</sup> and Blue Streak<sup>®</sup> stood out amongst the other brands. This is a testament to the trust technicians have put into the performance of our parts for generations.





Made to stand the test of time®

#### **Technician Aftermarket Brand Quality Survey**

Brands were listed alphabetically to reduce order bias

Source: Babcox Media Technician Survey, 2023

### Key Categories

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



#### **OE Durability Improved Ignition Coils**

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



#### **VVT Solenoids & Sprockets,** and Solenoid Kits

VVT components feature design improvements for optimum performance - Kits include two new premium Solenoids with quality **O-rings and gaskets** 



#### **Camshaft Sensor Kits**

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







#### **OE Durability Improved Coil Kits**

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



#### **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



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

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



#### **High-Temp Connectors**

**High-Temp connectors withstand** extreme heat and prevent melting for a longer service life













# Opportunities

Our engineers discovered that too much energy was passing through each segment of the OE coil, creating excess heat, and causing premature coil failure. They designed a Coil with two additional bobbin segments to better distribute the energy. The result is a Coil that runs cooler, performs more consistently and is more reliable. 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.

### **OE Problem:**

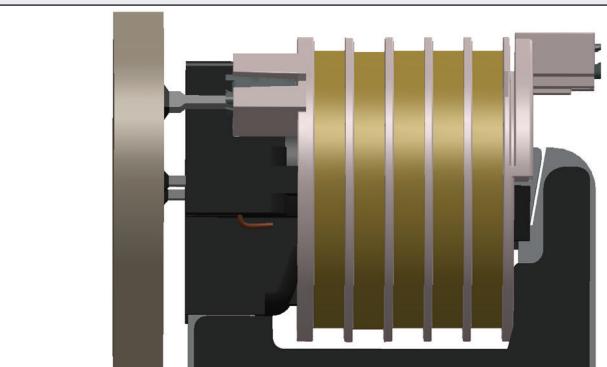
Ignition coils on the Ford 4.6L generate too much heat, leading to a premature coil failure

### **Blue Streak<sup>®</sup> Solution:**

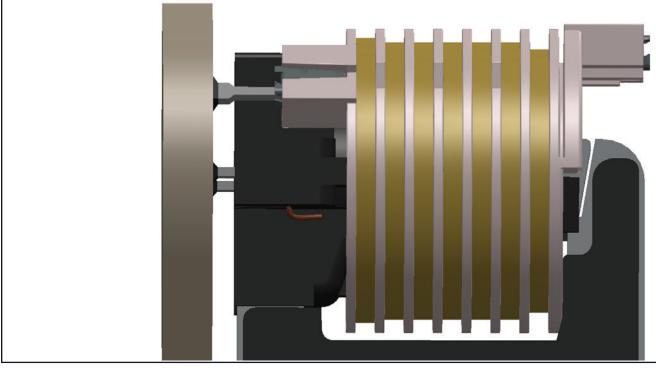
**Blue Streak<sup>®</sup> engineers designed** a Coil that added two additional **bobbin segments to better** distribute the energy, resulting in less heat and a longer service life



Made to stand the test of time®



OE Coil uses 5 bobbin segments with 27kV (5.4kV per segment)



Blue Streak<sup>®</sup> FD503 features 7 bobbin segments for 29kV (4.1 kV per segment)

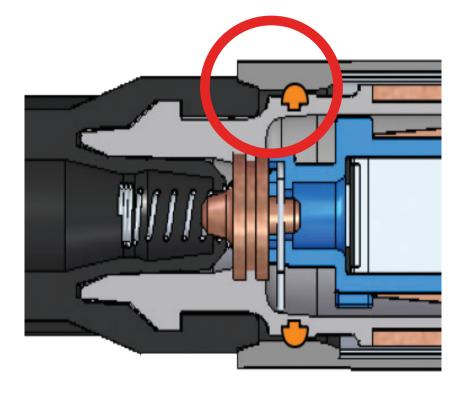
The result is a 32% reduction in energy per segment



# Engineering Improvements

Heat, moisture and corrosion are typical reasons that OE coils fail, and many OE designs can have 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.



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.

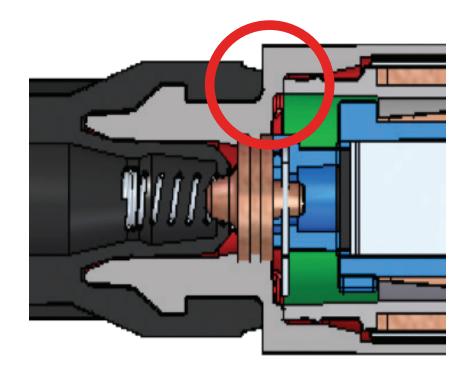


### Blue Streak<sup>®</sup> Makes Improvements to OE Pencil Coils

**OE Design Flaw – Two-piece design with O-ring** 

**OE has moisture intrusion** 

Blue Streak<sup>®</sup> Solution – Sealed, one-piece design



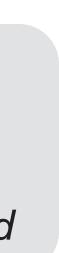
**Blue Streak® has no moisture intrusion** 

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

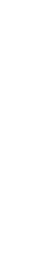
Source: SMP Poland Testing Lab

— Tomasz Michalik Technical Director, SMP Poland







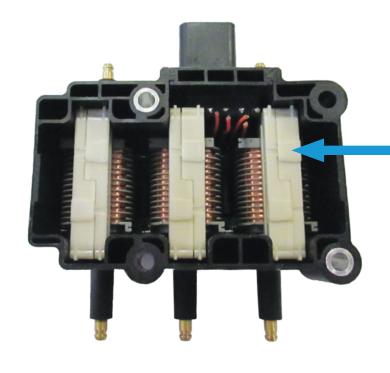


# Engineering Improvements

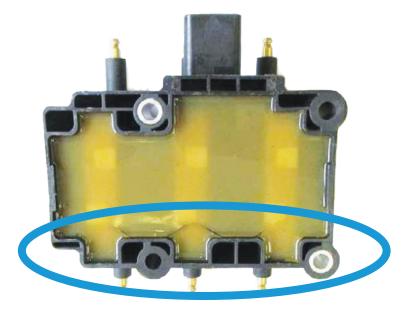
Another common reason OE coils fail is epoxy cracking due to flawed design and manufacturing processes.

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.



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



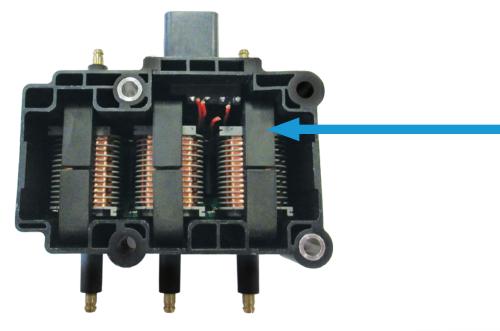
**OE Durability Improved Coils** 

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

#### **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





**UF305** Chrysler / Dodge / Jeep (2011-01) and similar coils

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

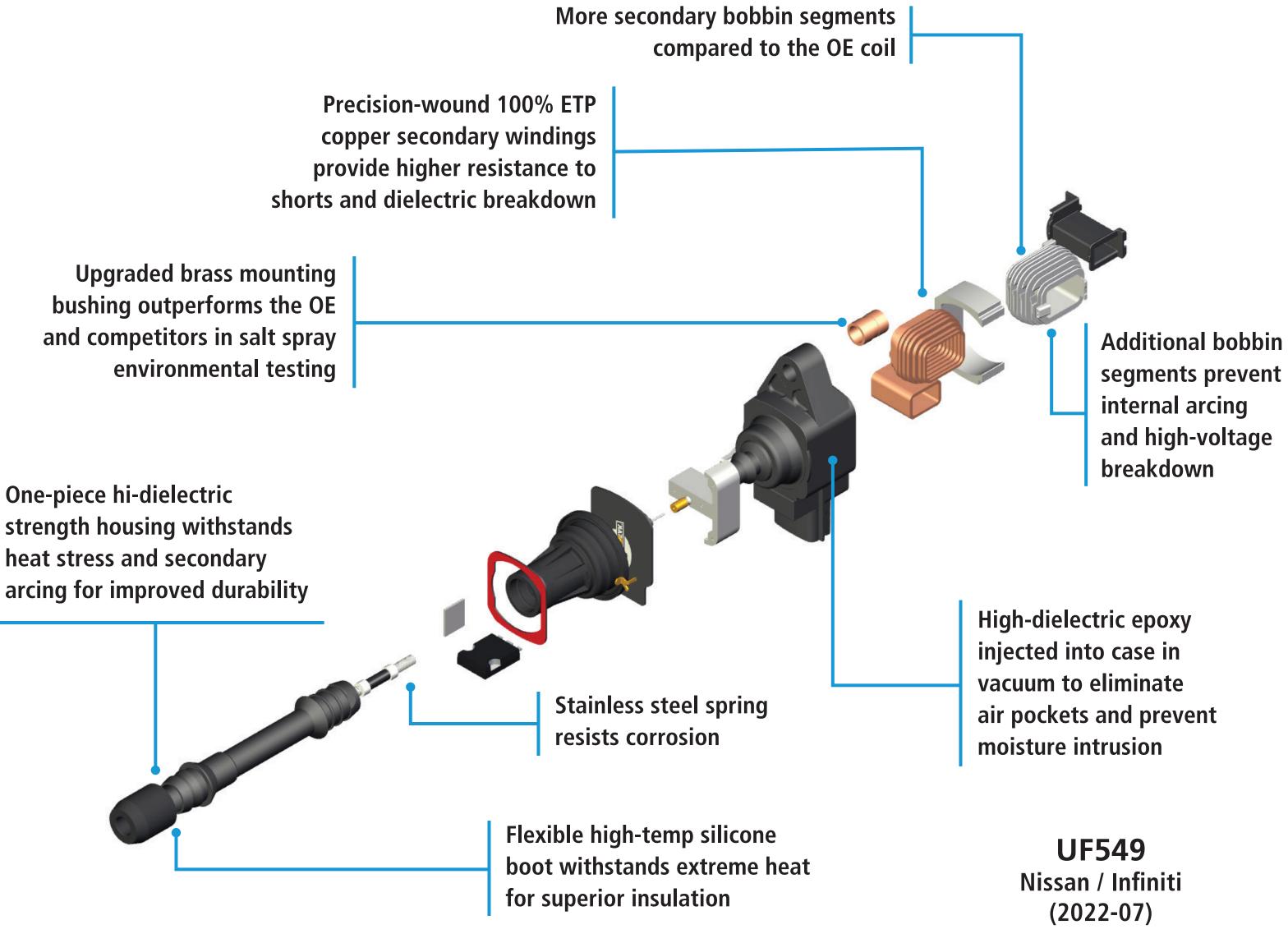


# Product Quality

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

#### **Did You Know**

Blue Streak<sup>®</sup> OE Durability Improved 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 at 7200 RPM.





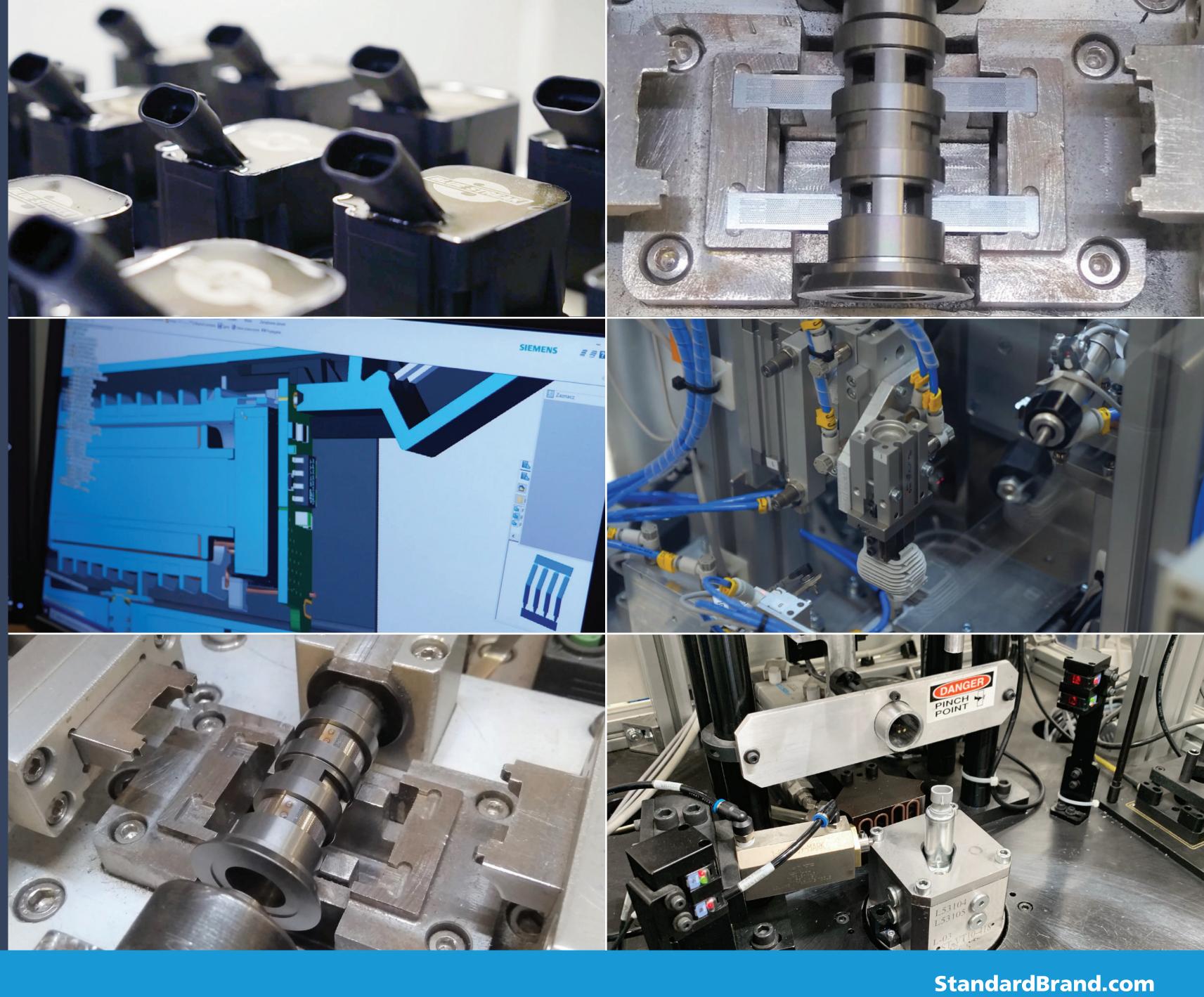
### **OE Durability Improved Ignition Coils**

## Expert Manufacturing

Blue Streak<sup>®</sup> Ignition Coils and Variable Valve Timing Components 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.

Dedicated to producing the highest-quality parts available, this plant produces millions of components annually while introducing more than 110 new products each year.

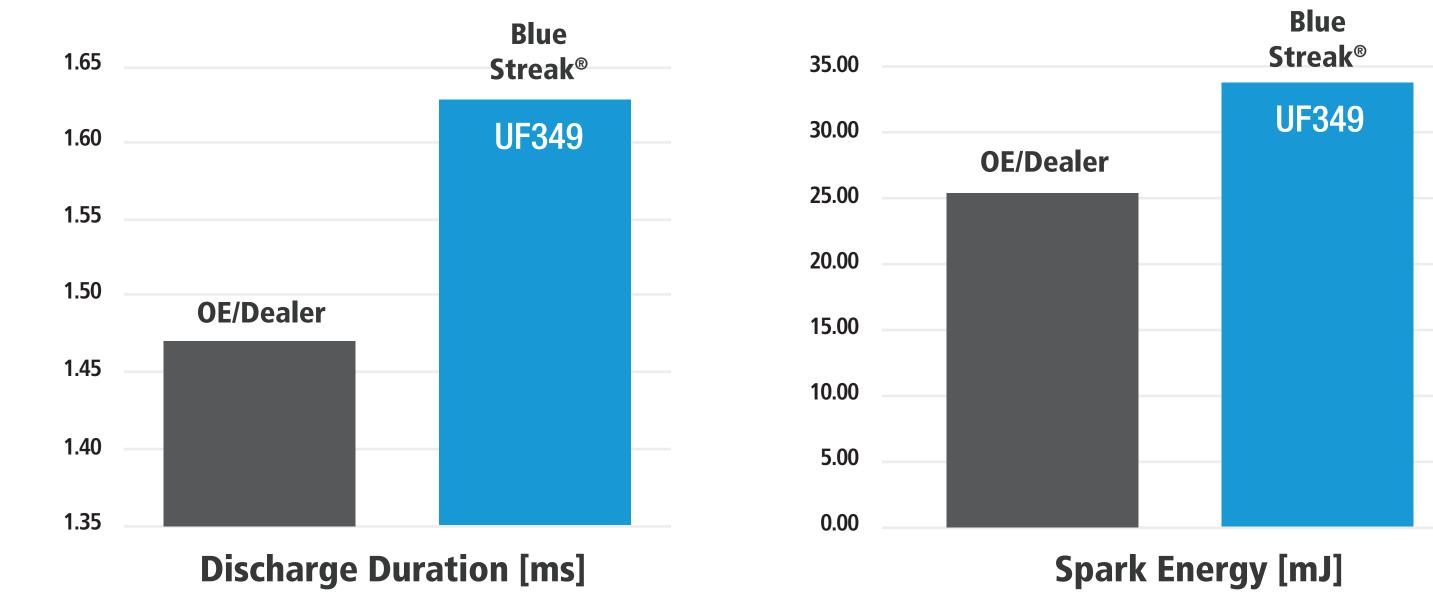




### Testing and Validation

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.

#### **Tech Tip**

Because of their additional performance capabilities, experts recommend installing Blue Streak<sup>®</sup> Coils in complete sets. This allows the motorist to get the full benefits of Ignition Coils with improved capabilities, performance and reliability.



#### The Test Results Are In

Source: SMP Poland Testing Lab



# 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.

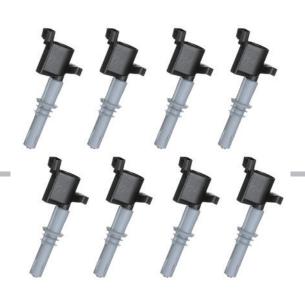
For the most recent applications, check the online catalog at StandardBrand.com.







**OE Durability Improved Coils** 



FD508K8 Ford Cars, Trucks & SUVs (2009-04) VIO: 1.9M





**UF242K6** Honda / Acura Cars (2008-99) VIO: 1.3M











# **Top Movers: Ignition Coils**

### IMPORT APPLICATIONS



**UF549** Nissan / Infiniti Cars, Trucks & SUVs (2022-06)



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

### DOMESTIC APPLICATIONS



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



**UF648** Chrysler / Dodge / Jeep / RAM (2023-11)



**Ignition Coils** 



**UF596** Toyota / Lexus Cars & SUVs (2022-08)



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





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



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





## 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 precise operation, correct on-vehicle performance and longer service life.

Welded reinforcement

ensures a stronger connection between screen and body

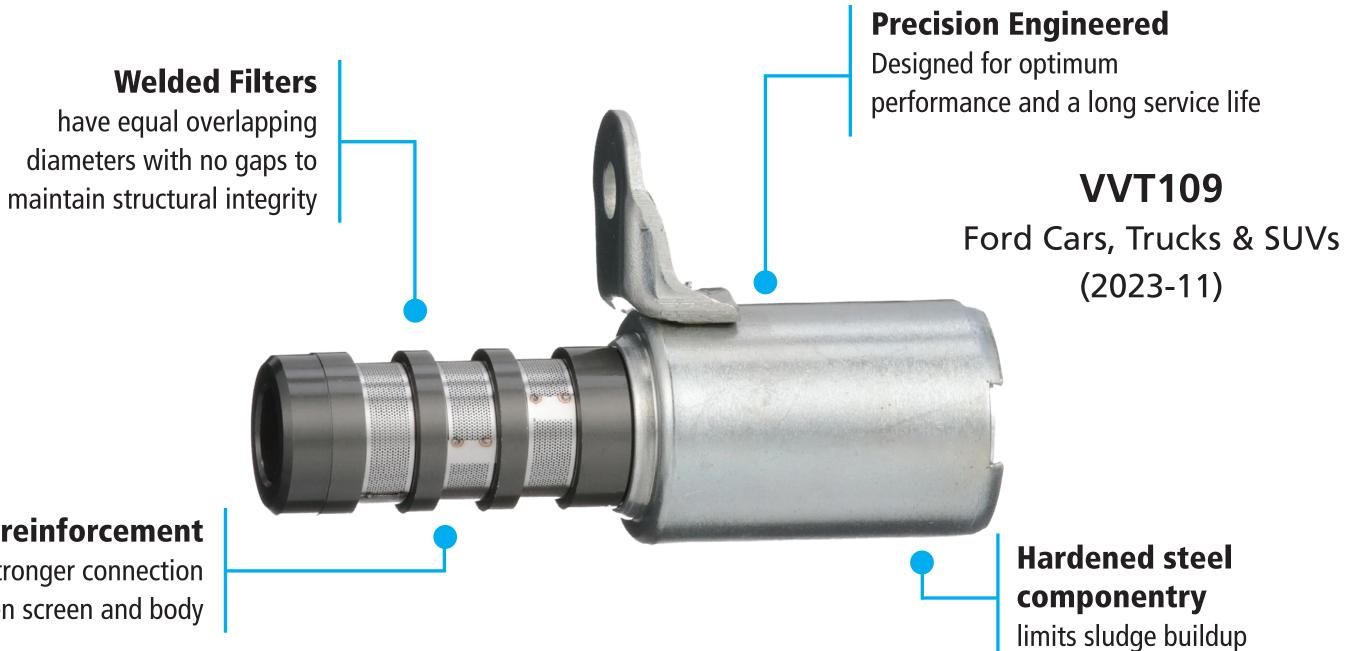
#### **Did You Know**

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



**VVT Solenoids** 

### **OE Durability Improved VVT Solenoid**











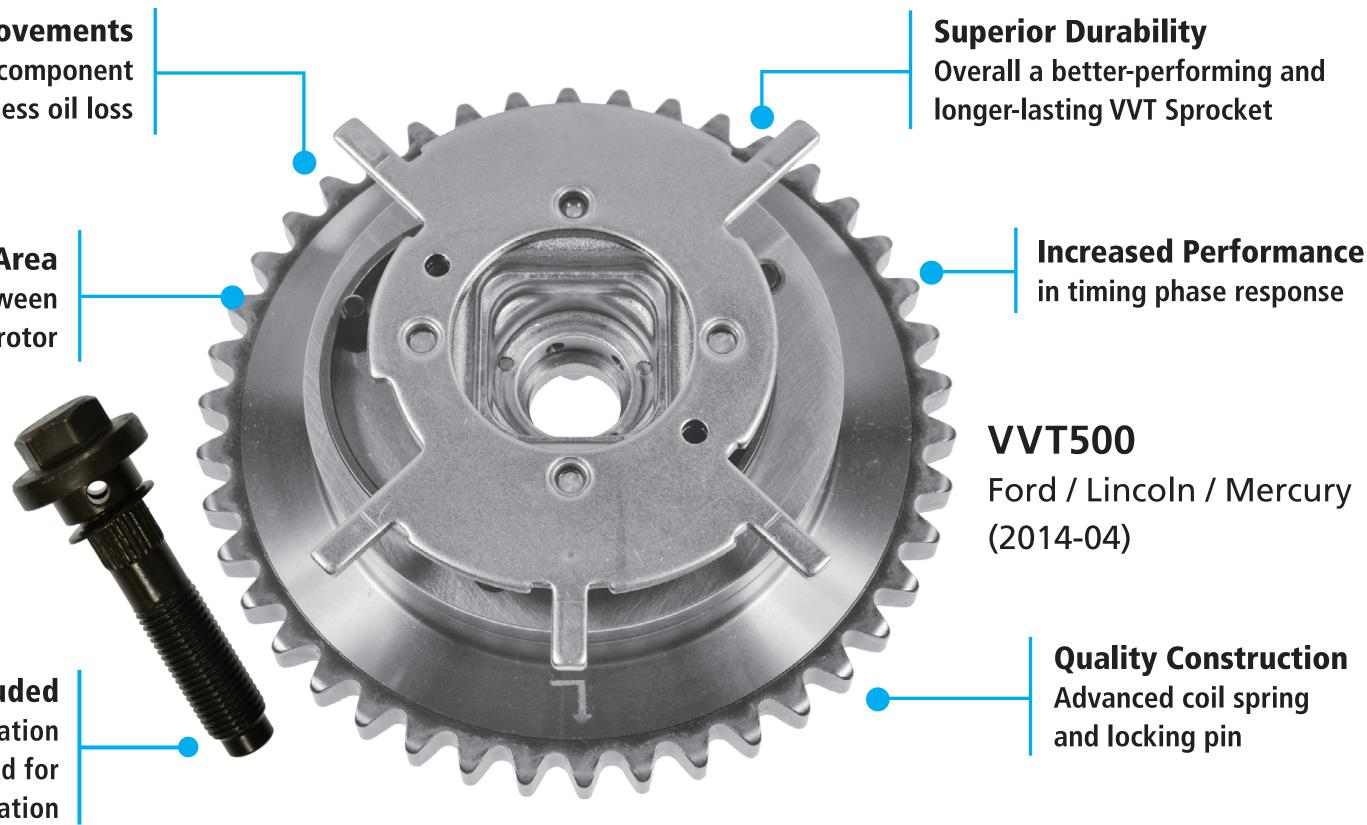
# Engineering Improvements

Blue Streak<sup>®</sup> VVT Sprockets meet the tightest tolerances to improve internal sealing, minimize oil drain back, 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.

**Design Improvements** virtually eliminate component wear for less oil loss

Larger Contact Area No friction between sprocket and rotor



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

#### **Did You Know**

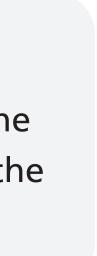
As part of a sophisticated system, the diameter of a replacement sprocket should match the original. Other aftermarket suppliers vary the diameter of their sprocket; this could alter the timing and stretch the timing chain.



**VVT Sprockets** 

#### **OE Durability Improved VVT Sprocket**





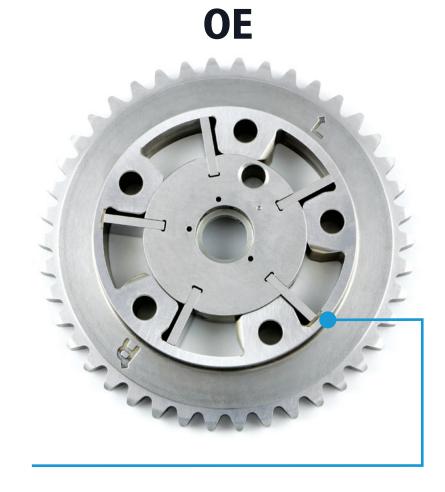


# Engineering Improvements

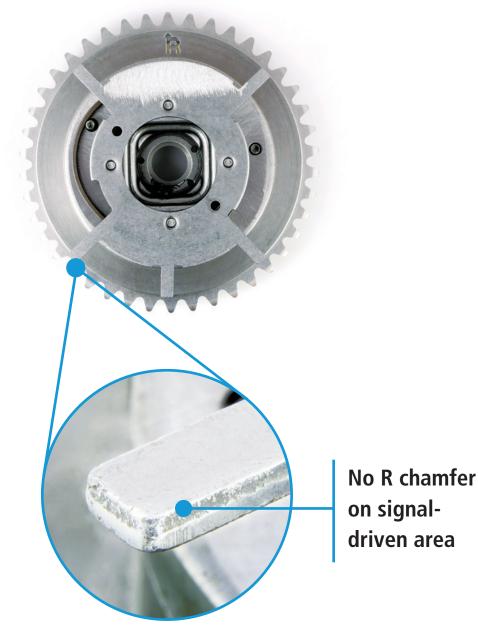
Blue Streak<sup>®</sup> matches the original in all key tolerances and then improves on it with an all-metal integrated machined design – no paddle inserts to wear out, larger contact area, faster response times and longer service life.

The OE metal paddles may produce iron shavings that impede performance and shorten sprocket wear.

Competitor D uses plastic paddle inserts that wear easily and an "R" chamfer which can affect the timing signal.



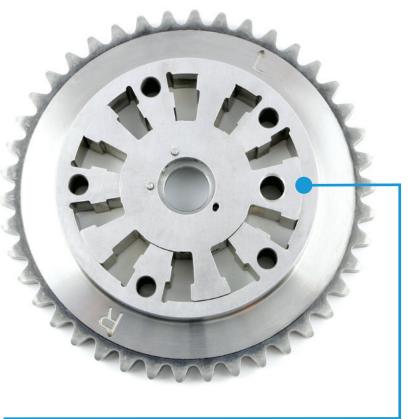
**Original - Metal Paddles Produce iron shavings, paddles** wear rapidly





**VVT Sprockets** 

#### **Blue Streak**<sup>®</sup>



**Best – Integrated Design** 

Larger contact area with no paddle to wear out

on signal-



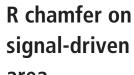


**Inferior – Plastic Paddles Components wear easily** 



Source: SMP Testing Lab, 2020









# VVT Design Improvements

Blue Streak<sup>®</sup> VVT Solenoids feature a stainless steel shaft for a durable and more reliable solution while the OE and competitor units use lesser materials prone to deforming and wear.

In addition, Blue Streak<sup>®</sup> VVT Solenoids include a groove on the armature for improved lubrication, allowing for faster valve switching and decreased wear of the armature, while competitors do not use grooves for lubrication, resulting in slower valve switching and accelerated wear.



The Blue Streak® VVT198 uses a stainless steel shaft, pressed all the way to the armature for durability and reliability

OE: Thin formed metal sheet shaft prone to deformation, and change of valve characteristics

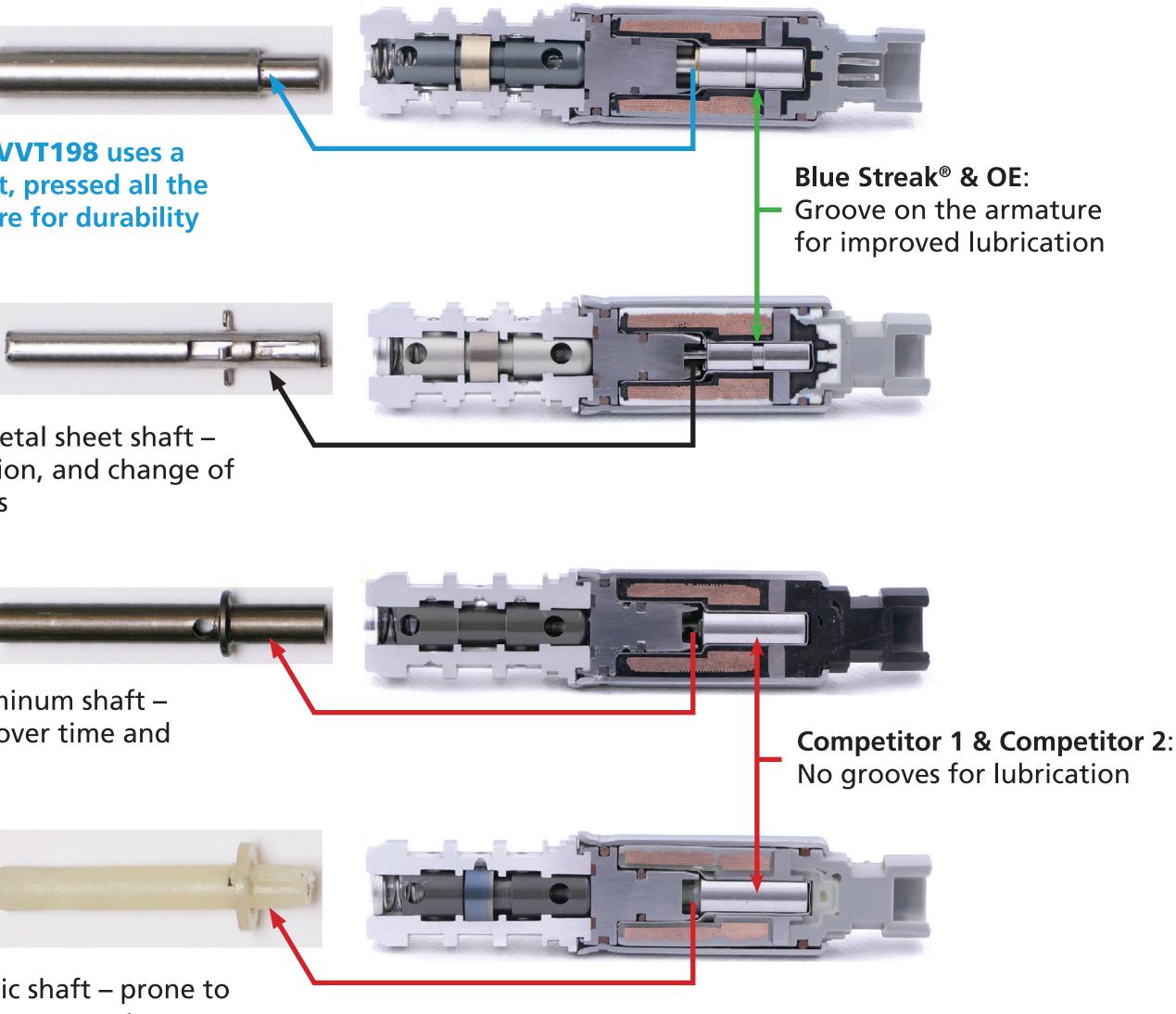
**Competitor 1**: Aluminum shaft – which can deform over time and alter valve timing



**Competitor 2**: Plastic shaft – prone to breaking, cracking, or premature wear



#### **Durable Shaft & Lubrication Grooves**

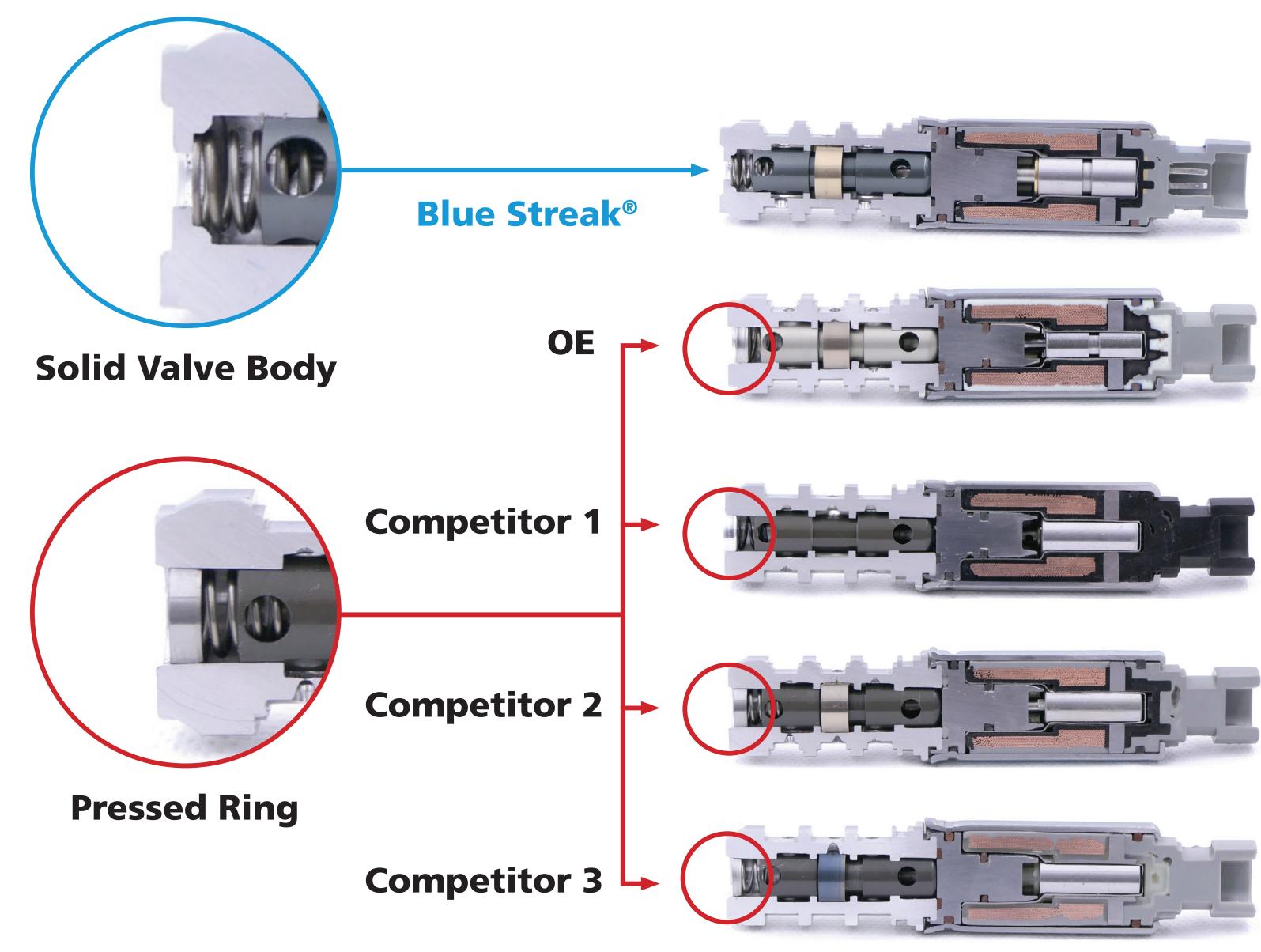


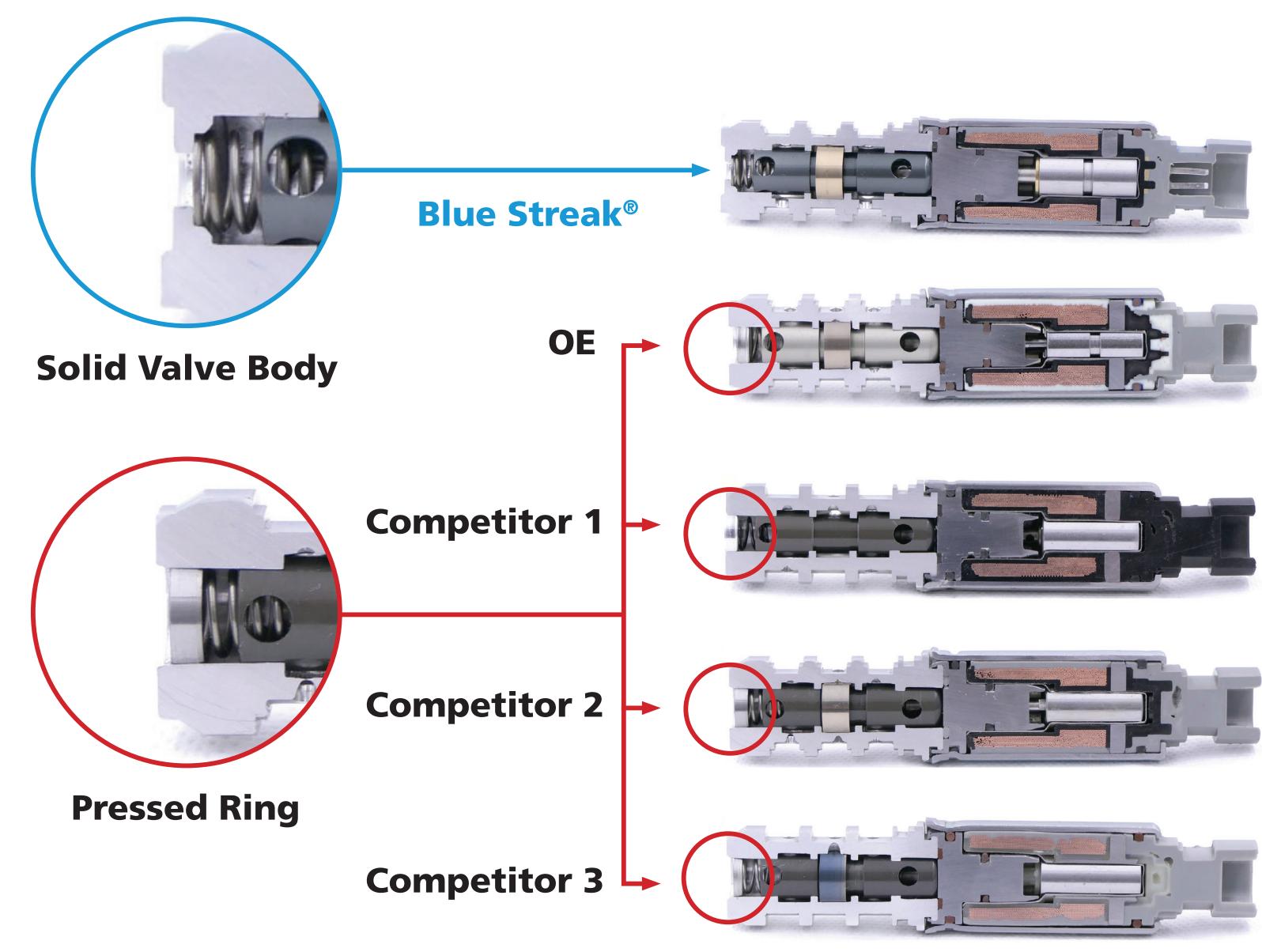


# VVT Design Improvements

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, which keeps the spring intact, 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 2024. For the most up-to-date listings, visit StandardBrand.com.

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

#### **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** 



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



# **Top Movers: VVT Solenoids**





**VVT143** Nissan Cars & SUVs (2020-13)



### DOMESTIC APPLICATIONS



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





**VVT Solenoids** 





### All-in-one Solution

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



Fault codes P0087 (fuel pressure is too low) or P0088 (fuel pressure is too high) can be the sign of a bad GDI highpressure fuel pump or a bad camshaft follower.



#### **Blue Streak® Solution:**

Blue Streak<sup>®</sup> Kits include everything needed for a complete repair - GDI High-Pressure Fuel Pump, Camshaft Follower, and the Seals and Hardware required for a complete service.



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









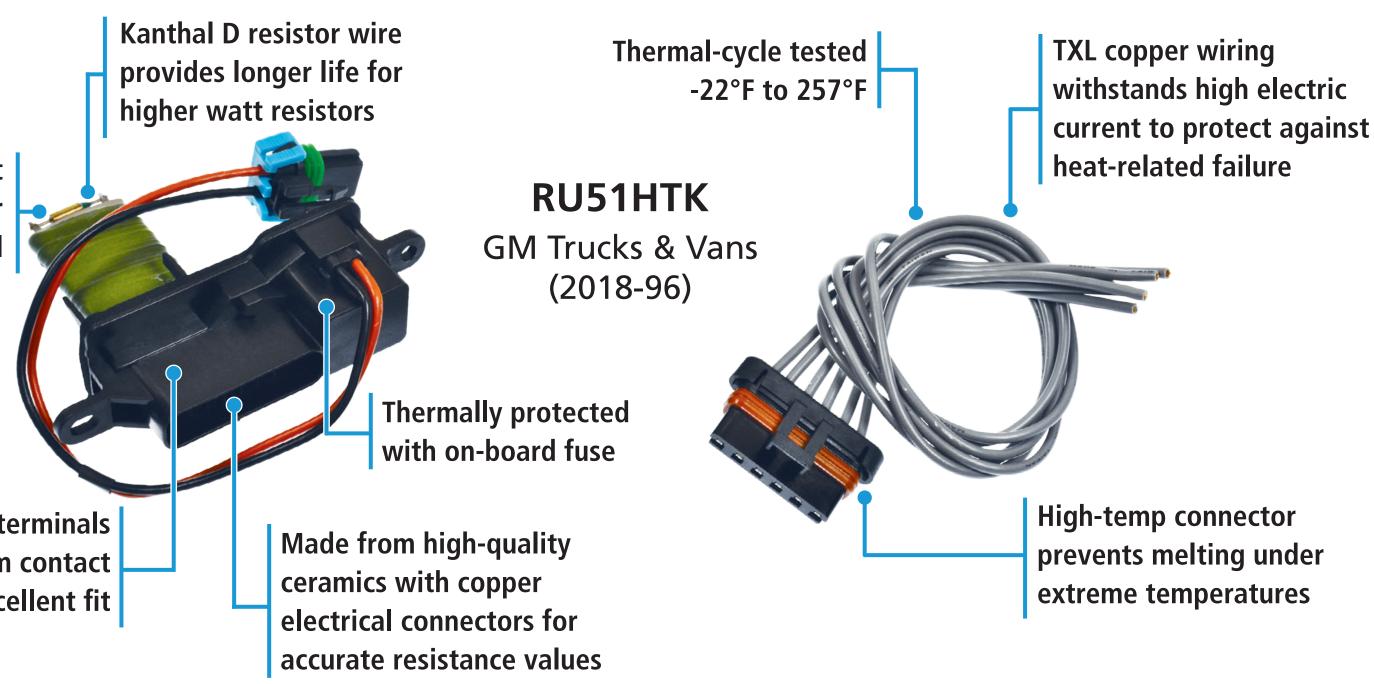
# Engineering Improvements

Blower motor resistors have a 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 it with a premium, direct-fit resistor for a quality kit.

**The OE Problem:** 

**Precision-built** resistor coils for better fan control

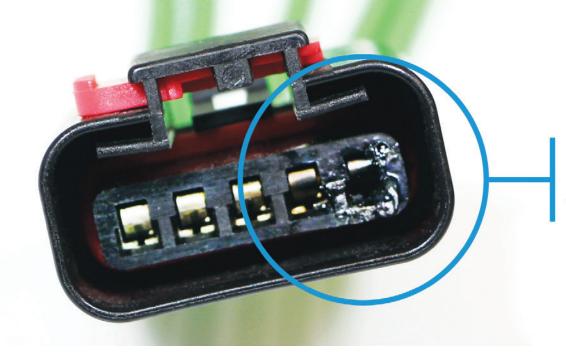


Tin-plated steel terminals ensure maximum contact and excellent fit



**Blower Motor Resistor Kits** 





**Current produces** heat that can melt the OE connector

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



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



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





RU404HTK Ford / Mercury Trucks & SUVs (2013-95)

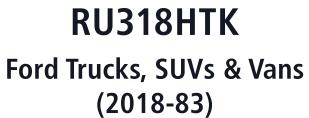


RU445HTK Ford Trucks, SUVs & Vans (2018-75)

### BLOWER MOTOR RESISTOR KITS



**Blower Motor Resistor Kits** 





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



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



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



RU464HTK **GM Cars** (2011-05)



## 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 original parts.

We offer more than 20 Crankshaft Sensor Kits, with more kits on the way.



#### **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.



**Crankshaft Sensor Kits** 

#### 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 original parts.

We offer more than 20 Camshaft Sensor Kits, with more kits on the way.



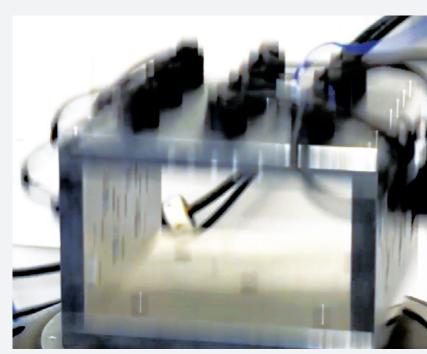
#### **Did You Know**

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







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

### CRANKSHAFT SENSOR KITS



**PC250K** Ford Cars, Trucks & SUVs (2011-97)



**PC63K** Ford Cars & SUVs (2004-95)

### CAMSHAFT SENSOR KITS



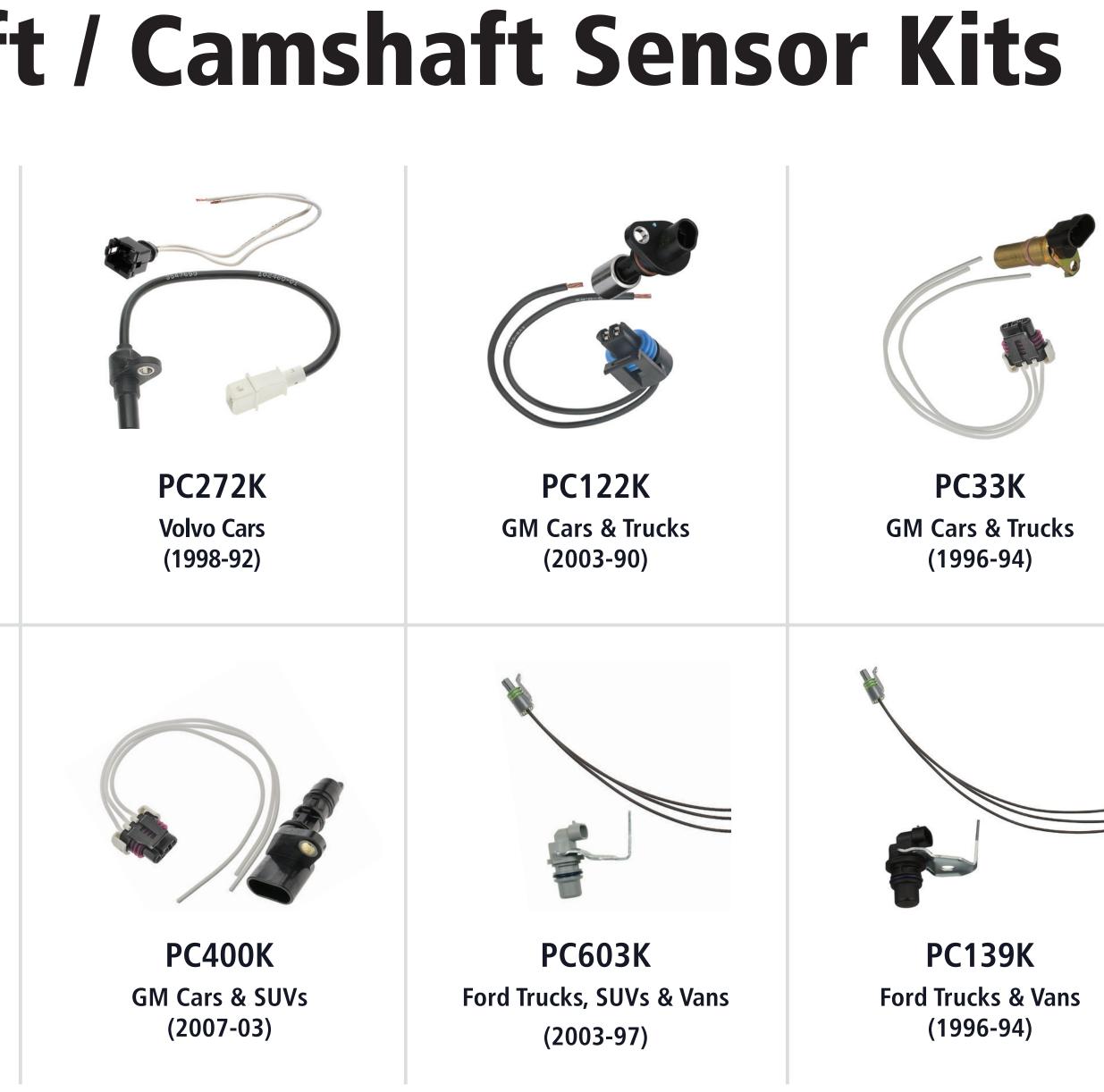
**PC423K** Ford Cars, Trucks and SUVs (2011-01)



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



**Camshaft and Crankshaft Sensor Kits** 



### High-Temp Headlight Harnesses

#### **OE Problem:**

The heat generated by modern OE automotive light bulbs can melt the bulb's wiring harness.

#### **Blue Streak® Solution:**

To prevent melting, our High-Temp Headlight Harnesses feature high-temp connectors designed to withstand extreme heat.

#### **Did You Know**

You can use the wiring harness as a pigtail if the original connector is melted.



**High-Temp Headlight Harnesses** 

### Blue Streak<sup>®</sup> High-Temp Headlight Wiring Harnesses

#### **Better Conductivity**

Utilizes an upgraded 14-gauge wire

#### **Prevents Chafing**

Features a durable fiberglass wrapping around the wire





### **Opportunity** Knocks

Blue Streak<sup>®</sup> Knock Sensor Kits are a professional time-saving repair solution that includes two Knock Sensors and a high-quality harness.

Our Knock Sensors are designed to respond to knock frequencies up to 1000 Hz, accommodating shifts in engine knock frequency, making them a more effective sensor over a broad range of vehicle conditions.

#### **Precision-Ground Disc**

Sintered ferroelectric, piezoelectric disc precision-ground to tight physical tolerance



**Precision Tunned Precision-machined** sensor body tunes resonant frequency to engine knock frequency

> **Double-Sealed Components Double-sealed to provide a** hermetic seal for the internal



**Knock Sensor Kits** 

#### Blue Streak<sup>®</sup> Knock Sensor Kits



Automated data acquisition system continuously monitors sensor output to ensure response with appropriate voltage at specified frequency rate

#### **Protective Seal** Foam seal provides protection, still allowing the housing to flex and achieve the optimal sensor

components

**KS116K** GM Cars, Trucks, SUVs & Vans (2007-99)





# Standard® Pro Training Tech Tips

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

For vehicles with multiple cam sensors, over time, the magnet inside a sensor may lose its strength, resulting in a weaker output signal - If one sensor is replaced, the companion sensor will appear weaker, so it is a good idea to replace both sensors at the same time





When replacing a blower motor resistor, ensure that the wiring repairs are done properly and the buttconnectors are properly heat shrunk – Poor repairs will result in a voltage drop and poor performance from the blower motor



VVT timing error DTCs may be set by loose timing chains and guides – If the cam phasers are being replaced on a high-mileage engine, the rest of the timing components should be replaced at the same time

# 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 650 technical and installation videos.



**Available Classes** 





Made to stand the test of time®





- **Automotive Ignition Fundamentals**
- Variable Valve Timing Tips and Tricks
- **Diagnostic Brain Teasers**
- **Ignition Analysis**
- **Misfire Diagnostic Tips**
- Nissan VVT System Diagnosis
- Variable Valve Timing

**Available Classes** 

**Advanced Driveability Diagnostics** 

Analytic Approach to Diagnostic Problems

**Ford Gas Vehicles** 

**Ignition Systems and Cam/Crank Synchronization** 

**Misfire Diagnosis** 

**Powertrain Electronics** 



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



