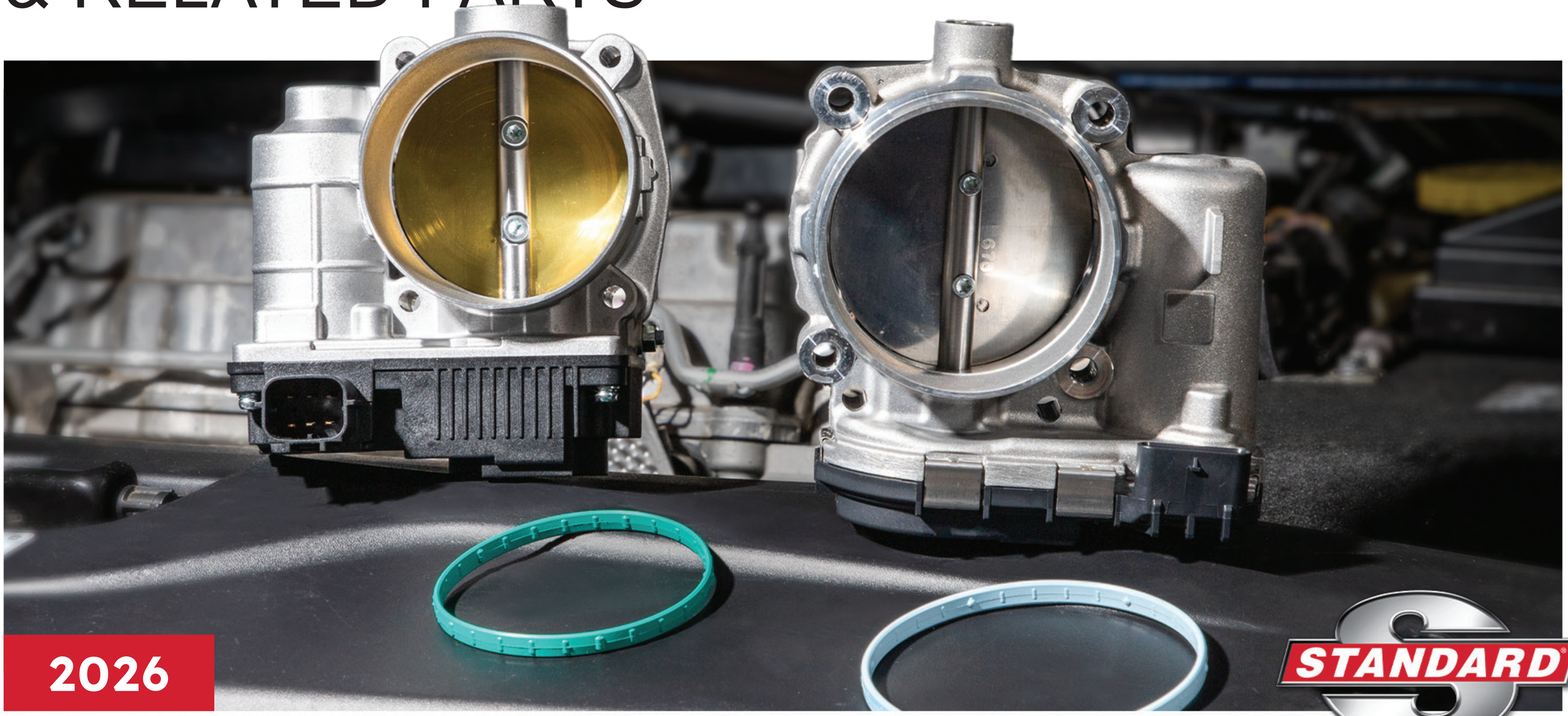
ELECTRONIC THROTTLE BODIES
& RELATED PARTS

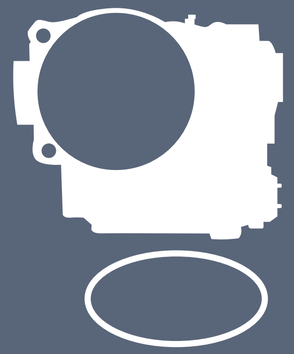


2026

STANDARD®

WHAT'S IN YOUR BOX?™

HERE'S WHAT'S IN OURS.



Popular Standard® Electronic Throttle Bodies include new gaskets for a quicker installation

100%
NEW, CALIBRATED AND TESTED

Every Standard® Electronic Throttle Body is 100% new, never remanufactured and fully calibrated & tested

230+
SKUs

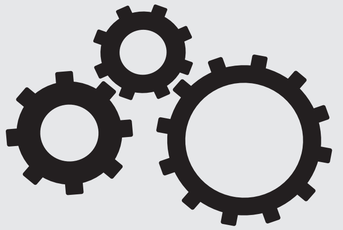
We are an expert manufacturer with more than 230 ETBs available for import and domestic vehicles

Why ETBs Fail

Although they are called ‘Electronic’ Throttle Bodies, ETBs are not entirely electronic. They rely on a mechanical gear train to open and close the throttle blade. This gear train can fail early if it is not manufactured using the highest-quality materials and advanced manufacturing processes. Many OE manufacturers fail to do so, creating ETBs that fail far sooner than they should.

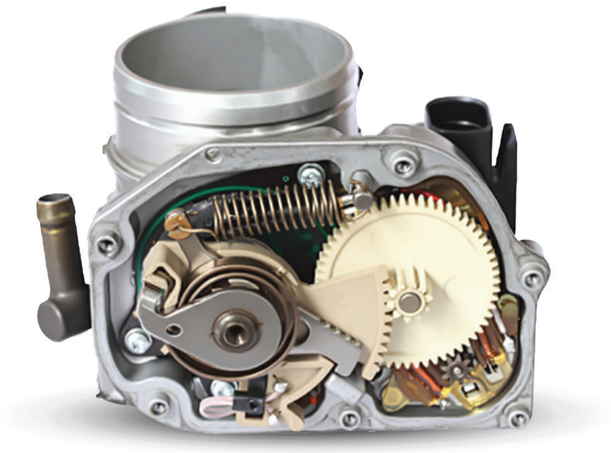
How do ETBs work?

Electronic throttle bodies are actually mechanical components. An electric motor turns gears which mechanically open and close the throttle plate to control the airflow into the engine.



How do ETBs fail?

- There is no oil or lubrication system for the gear train of an ETB
- Over time, the gear teeth can wear, causing ETB failure
- ETBs are exposed to harsh underhood conditions and contamination which can cause them to wear faster



OE ETB with an all-plastic gear train

Opportunities

Jeep and Chrysler 2.0L and 2.4L throttle bodies often fail well before 100,000 miles. This is due to a poor design which results in worn or broken gear teeth inside the ETB.

Standard® identified this issue and improved the internal design of the ETB. The Standard® S20176 features improved geometry as well as high-strength materials. The result is a better-performing and longer-lasting Electronic Throttle Body.

STANDARD® DESIGN IMPROVEMENTS

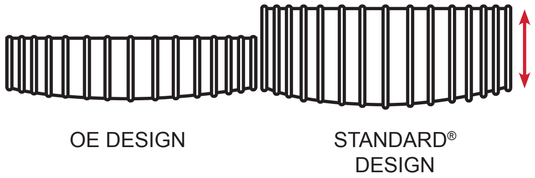
The electronic throttle bodies on the Chrysler / Pentastar 2.0L and 2.4L are known for their high failure rates.

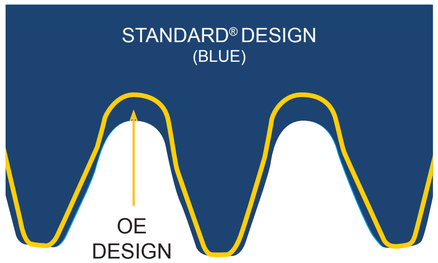
OE PROBLEM

The gear teeth prematurely wear because of poor geometry and a soft material

STANDARD® SOLUTIONS

1. Increased the face width on the gear by 17% to reduce stress on the gear teeth
2. Improved the geometry of the gear teeth to make them stronger (thicker teeth with a slightly shorter overall length)
3. Upgraded the material to Nylon 66, a higher strength, heat-resistant material



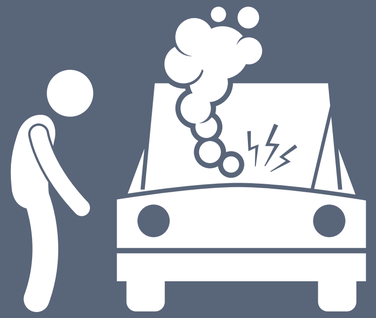


The result is an ETB that outlasts the original

Impact on Engine Systems

Most vehicles' powertrain control modules will adapt and operate differently as throttle components wear and/or collect carbon. After replacing a throttle body, the memory needs to be reset so the module doesn't look for the previously learned values

Electronic Throttle Control is utilized for torque control from the powertrain. An error in the throttle will affect the engine's performance, and other faults, such as a faulty wheel speed sensor, will affect the throttle control system



Loss of one throttle position sensor signal (there are multiples) can put the vehicle into "limp mode" so as to avoid a false acceleration event

What's New

As many manufacturers design new or reconfigure their existing engine packages, new throttle body designs are being introduced on new vehicles every year. Standard® is regularly releasing new numbers in this category for late-model import and domestic vehicles.

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

S20497

Volvo 2.0L

(2023-16) VIO: 525K

S20522

Jeep / Dodge 2.0L

(2024-18) VIO: 845K

S20504

GM 6.6L Diesel

(2025-20) VIO: 1M

S20496

Nissan 1.6L

(2025-18) VIO: 1.1M

TOP MOVERS RANKED:

Electronic Throttle Bodies

IMPORT APPLICATIONS

S20197

Toyota / Lexus
Trucks & SUVs
(2022-04)

1

S20229

Hyundai / Kia
Cars & SUVs
(2013-06)

2

S20059

Nissan / Infiniti
Cars & SUVs
(2017-07)

3

S20129

Toyota / Scion
Cars & SUVs
(2007-03)

4

S20183

Nissan
Cars & SUVs
(2020-13)

5

DOMESTIC APPLICATIONS

S20068

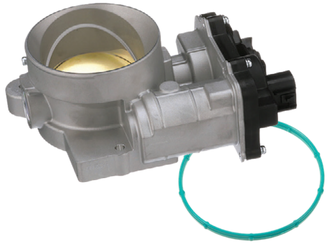
Ford / Lincoln
Cars, Trucks, SUVs & Vans
(2020-11)

S20067

Ford / Lincoln / Mercury
Cars, Trucks, SUVs & Vans
(2025-09)

S20176

Chrysler / Dodge / Jeep
Cars & SUVs
(2018-07)



S20008

GM
Trucks, SUVs & Vans
(2009-05)

S20062

Ford / Lincoln
Trucks, SUVs & Vans
(2020-11)

Related Parts

Whether cable or electronic, a vehicle's throttle control system is often made up of more than just the throttle body. Standard® offers a full line of key components needed to keep this system operating correctly.

Throttle Position Sensors

Monitors the throttle plate angle and sends information to the vehicle's ECU

Standard® Throttle Position Sensors maintain specific installed outputs to match the original

More than 280 TPSs available with coverage through model year 2021

Accelerator Pedal Sensors

Indicates the position of the throttle pedal and sends information to the vehicle's ECU

Standard® Accelerator Pedal Sensor assemblies are 100% tested to ensure the most accurate pedal position information

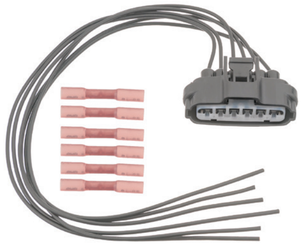
420+ APSs available with coverage through model year 2025

Intake Manifold Actuators

Controls airflow within the intake manifold

Standard® Variable Intake Manifold Actuators are designed with premium components to prevent intake linkage failure and deliver long service life

Coverage through model year 2025 for import and domestic vehicles



ETB Connectors

High-quality direct replacements eliminate the need for a new harness, replacing only the damaged connector for a cost-effective repair solution

All Standard® Connectors are 100% tested for precise mechanical and electric performance

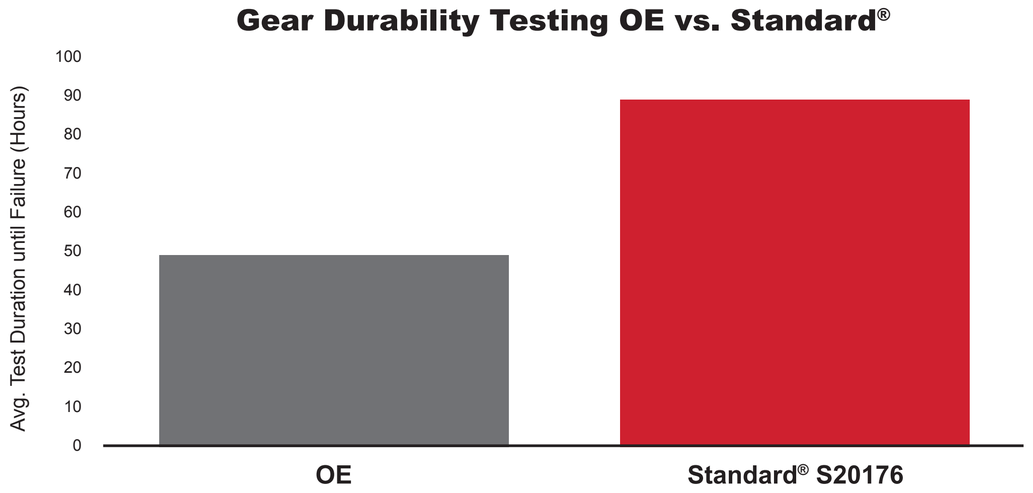
Coverage through model year 2025 for import and domestic vehicles

Gear Durability Testing & Results

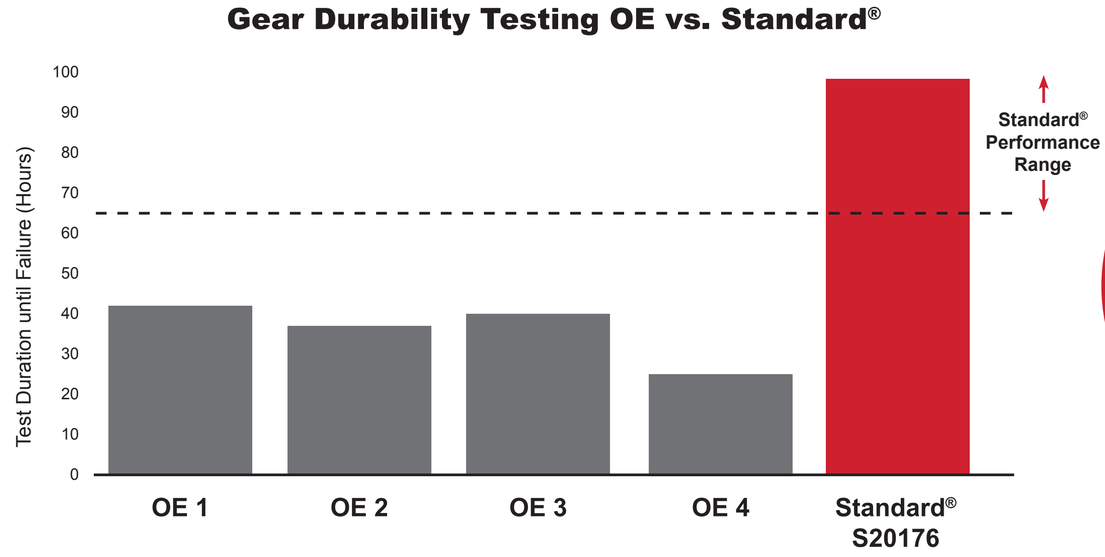
SMP engineers utilize an accelerated durability test which continuously rotates the throttle plate ten degrees per second while it is in the near-closed position. This continues until mechanical failure occurs.

Standard® used this test to reengineer the Jeep / Chrysler 2.0L electronic throttle body which often fails due to poor gear geometry and weak materials. The Standard® S20176 is a direct-fit replacement and lasts 80% longer than the OE thanks to its updated internal design.

Standard® outperforms the original for durability



Standard® performed 80% better than the OE

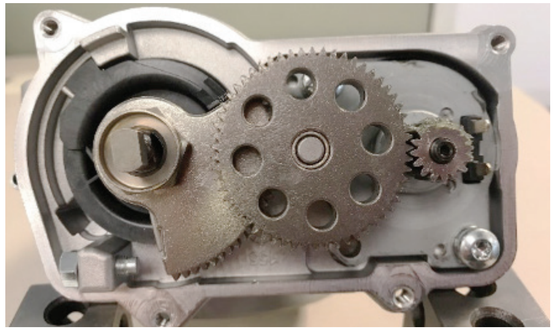


All 4 OE parts failed to measure up to the Standard® design

Source: SMP Testing Lab

Standard® Engineering

Millions of OE GM 5.3L and 6.0L V8 throttle bodies were produced using flawed internal designs which lead to premature failure. Standard® engineers identified these weak points and entirely redesigned our S20006 Electronic Throttle Body to address them.

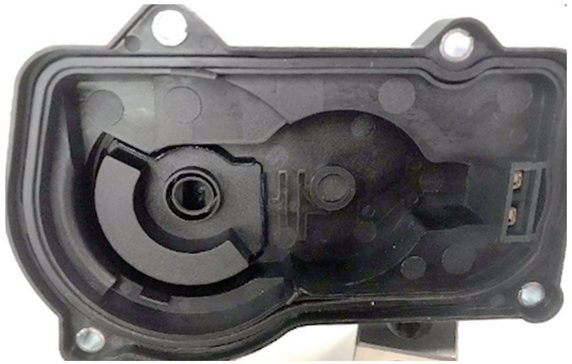


Upgraded Stainless Steel Gears

S20006 uses a stainless steel gearset instead of plastic like the OE, resulting in a better-performing and longer-lasting ETB.

Totally Enclosed Contact Brushes

The contact brushes are totally enclosed and separate from the gearset and other moving parts. Motor contacts are plated to minimize contact resistance and resist corrosion. Screw holes include steel inserts to limit compression to prevent plastic from cracking and ensure a complete seal.



Sealed Construction

Improved elastomeric seal protects sensor from harsh underhood conditions to prevent contamination, improving reliability.

Source: SMP Testing Lab, 2020

Testing

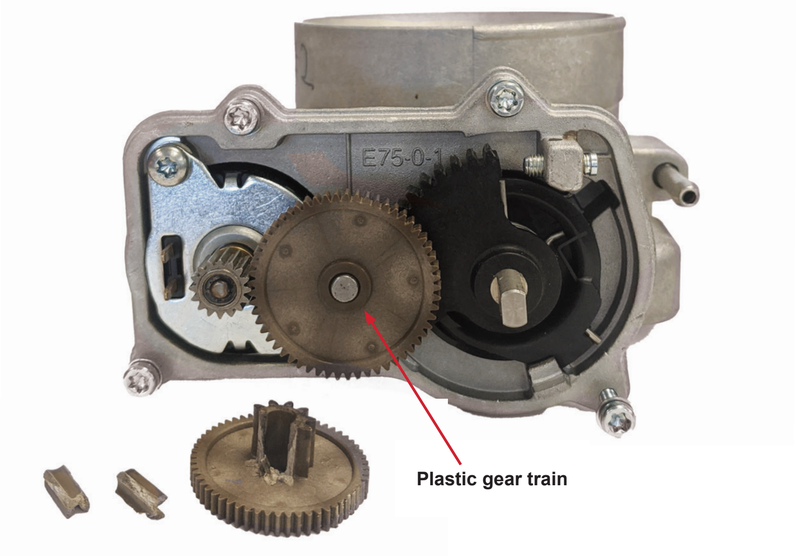
Our ETBs are the result of superior design and the testing proves it.

Standard® ETBs only utilize the highest-quality internal components, including stainless steel gear trains. This attention to quality is why our ETBs outlast the competition.

Visit **StandardBrand.com** for detailed test results.

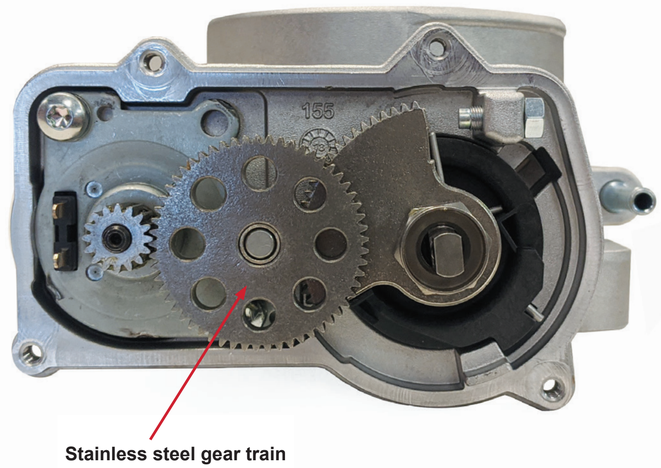
Standard® Electronic Throttle Bodies' superior quality stands up to the most severe underhood conditions and strenuous demands of today's engines – the competition did not.

COMPETITION **FAILED**



- After only 10 days of testing, the competitor ETB failed with a cracked compound gear
- Inherent design flaws rendered the competitor unit unusable

STANDARD S20006 **PASSED**

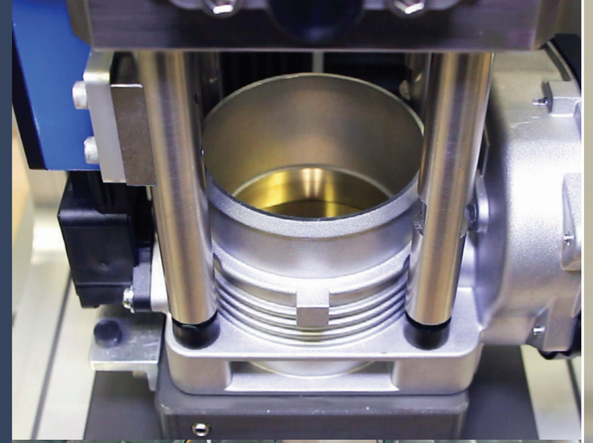


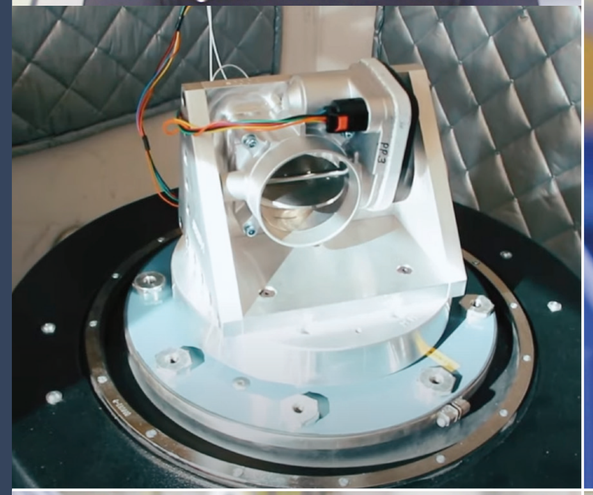
- Even after 45 days of endurance testing, our ETB was intact and fully operational
- Standard® delivers a premium-quality ETB that performs under the toughest conditions

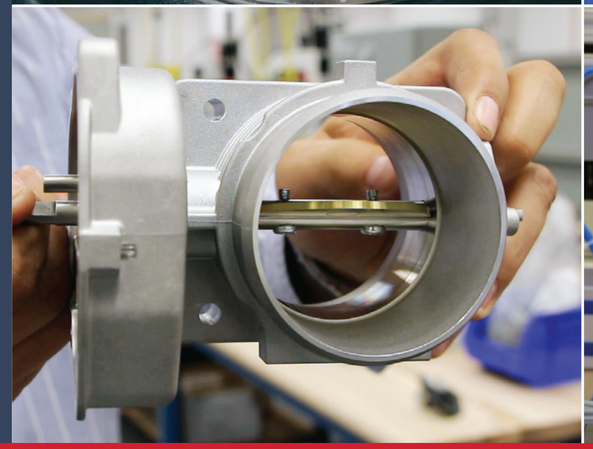
Source: SMP Testing Lab, 2020

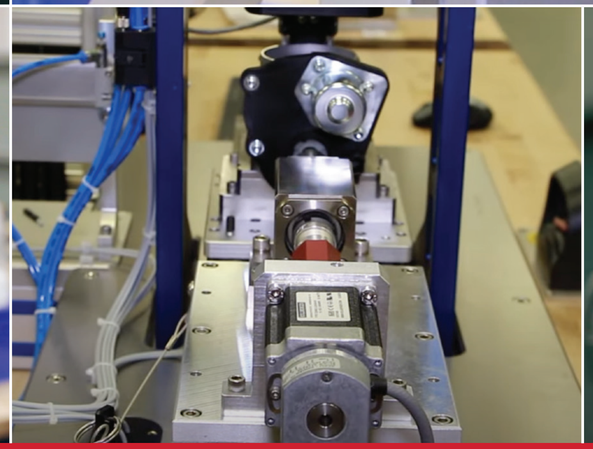
Expert Manufacturing

As an expert Electronic Throttle Body manufacturer, we maintain complete quality control throughout the entire manufacturing process. We assemble and calibrate the components and validate output voltages to ensure they match OE for proper fit and precise performance. Standard® ETBs are application-specific and precision-engineered to perform.









100% NEW

(Never Remanufactured)

Electronic Throttle Bodies

Standard® Quality

The highest-quality components, attention to detail and rigorous testing are why professional technicians trust Standard® more than any other brand. When technicians install an all-new ETB from Standard® they know it will perform and last.

S20176
Jeep / Dodge / Chrysler
2.0L & 2.4L
(2018-07)

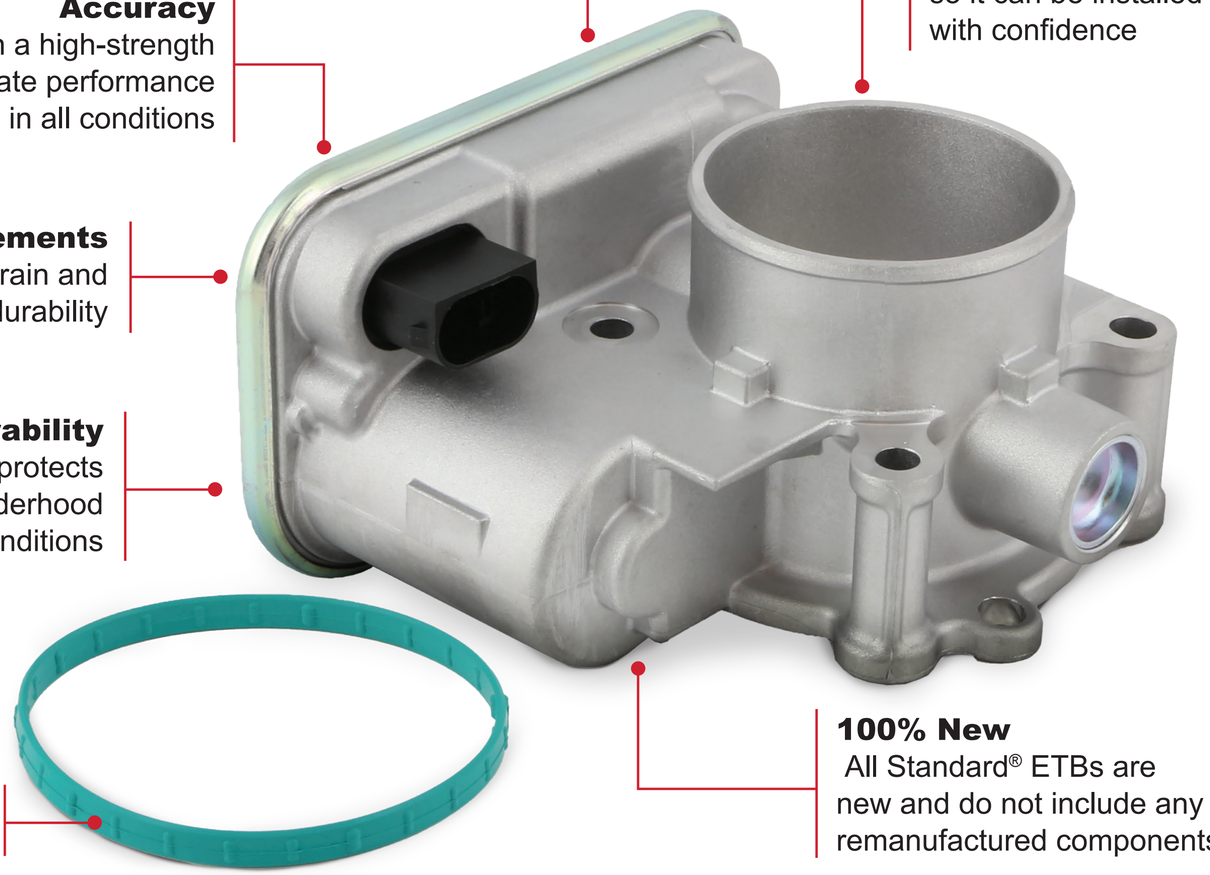
Made in North America
Standard®-manufactured ETBs are built in our own IATF-certified North American facility

Accuracy
Magnet is molded in a high-strength polymer for accurate performance in all conditions

Design Improvements
Enhanced gear train and materials for improved durability

Durability
Elastomeric seal protects sensor from hard underhood environment conditions

Includes Gasket
for a complete repair



Testing
Calibrated and tested so it can be installed with confidence

100% New
All Standard® ETBs are new and do not include any remanufactured components

A Closer Look at Our Premium ETBs

Housing

Our housings are constructed using corrosion-resistant aluminum and are CNC-machined to a 0.4 micron surface finish. Air velocity, flow, and pressure losses through the ETB are also verified by use of Computational Fluid Dynamic (CFD) testing software.

Gear Train

Designed and simulated using sophisticated gear design software and precision-molded in the U.S.A., our double reduction gear train uses powdered metal and high-strength synthetic materials to prevent gears from failing.

Throttle Plate Shaft

Stainless steel throttle plate shafts are precision-machined and centerless ground to ensure proper alignment of the throttle plate in the throttle bore, and low friction when paired with precision needle roller bearings.

Throttle Plate

Brass and aluminum throttle plates are CNC-machined with tolerance less than 0.001 inches.

Bearings

We double-seal both our deep-grooved ball bearings and drawn cup needle roller bearings to control the amount of air leakage from the bearings into the intake. Plus, our bearings are designed to operate in the housing between -40˚F and 284˚F.

Motor

Our motors are rated for exceptional life in temperatures ranging from -40˚F to 248˚F. Plus, our motors' integrated ball bearing design helps minimize cogging torque and our dynamometer testing ensures OE-matching performance.

Standard® Pro Training Tech Tips

Standard® Pro Trainers have installed hundreds of ETBs and trained thousands of technicians. Here's what they say to look out for during an ETB installation.

Many ETB problems are caused by a loose pin fit at the electrical connector. Do your customer a favor and replace the pigtail connector when you're replacing the ETB

Ensure proper diagnosis occurs prior to replacing the ETB. Keep in mind that other systems, such as traction control and ABS, can affect the throttle opening and performance. Ensure that all those issues are corrected before diagnosing a throttle concern

High idle or intermittent stalling are common concerns after replacing an ETB if the proper relearn procedure isn't followed. Refer to service information to verify if and how to perform a relearn for the vehicle you're working on

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.

PRO TRAINING ON-DEMAND

Available Classes

- Diagnosing VW Drive By Wire
- Electronic Throttle Control
- Electronic Throttle Control Fundamentals
- Ford Electronic Throttle Control
- GM Electronic Throttle Control
- Throttle Body Diagnostics

PRO TRAINING ON-SITE

Available Classes

- Ford Gas Engines Update
- GM Engine Controls
- Honda / Acura Diagnostics
- Nissan / Infiniti Diagnostics
- Torque Management and Electronic Throttle Systems
- Toyota / Lexus Diagnostics
- VW / Audi Diagnostics

For information on replacing Electronic Throttle Bodies, search “Throttle” on the **Standard Brand** YouTube channel or scan the QR code for the ETB playlist