ELECTRONIC THROTTLE BODIES & RELATED PARTS

Highlights

1. We are an expert manufacturer with more than 200 ETBs covering 190M+ VIO

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

3. Gaskets included for a complete repair, where required

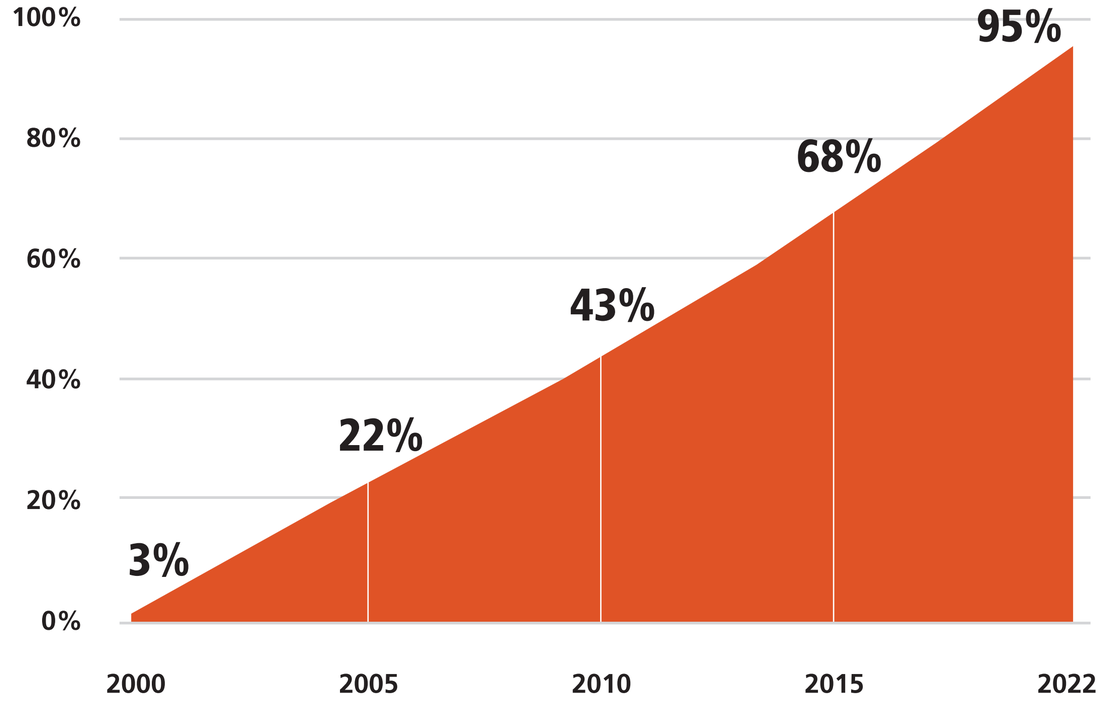
What's in your box?™

Growing Market

Vehicle manufacturers began using ETBs to improve fuel economy and reduce emissions. Today, there are more than 250 million vehicles on the road with ETBs. High OE failure rates, especially in the gear train, will make ETBs a strong category for years to come.

In the next 5 years, 68 million more vehicles with electronic throttle bodies will enter the Aftermarket “sweet spot” of 6-12 years old.

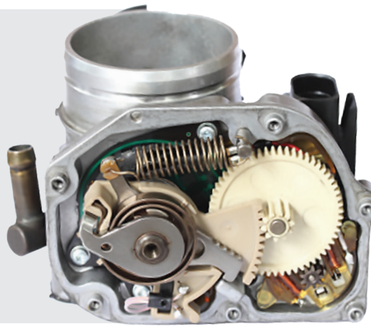
New Vehicles Equipped with Electronic Throttle Bodies



Source: SMP Internal Data

Service Opportunities:

Electronic throttle bodies use a complex gear train with no oil. Operating in extreme conditions, these gears often rotate back and forth hundreds of times per mile. This leads to high failure rates and service opportunities.



Sales Opportunities

The Jeep / Chrysler 2.0L and 2.4L often see ETBs fail before 100,000 miles. The main cause is worn or broken gear teeth inside the ETB.

Standard's premium ETB replacement includes improved geometry and high-strength materials for a better-performing and longer-lasting gear train.

OE PROBLEM

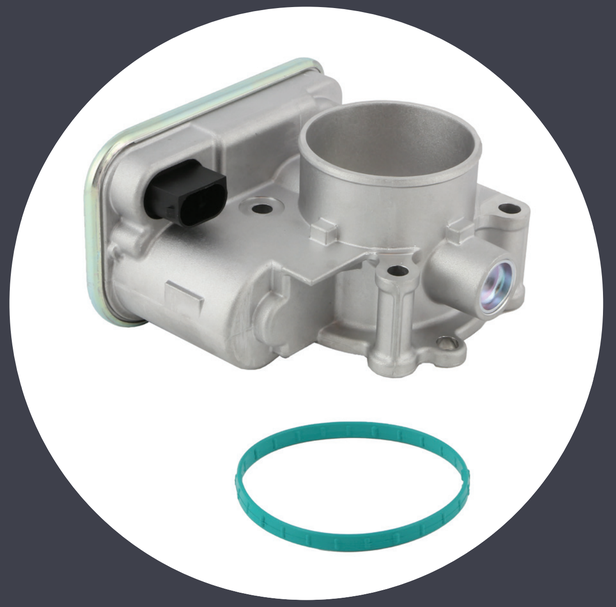
Excessive wear and broken gear teeth on Jeep / Chrysler Electronic Throttle Bodies

Jeep / Chrysler 2.0L & 2.4L

Chrysler 200 (2014-11)
Chrysler Sebring (2010-07)
Dodge Avenger (2014-08)
Dodge Caliber (2012-07)
Dodge Journey (2018-09)
Jeep Compass (2017-07)
Jeep Patriot (2017-07)

STANDARD® SOLUTION

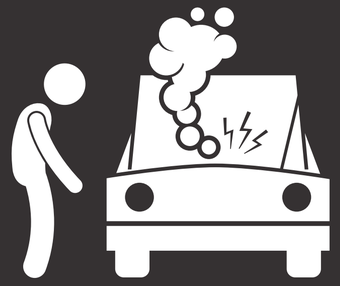
Standard's popular S20176 Electronic Throttle Body is designed specifically for Jeep / Chrysler applications. This premium ETB features engineering upgrades including a reinforced gear train that outperforms the original design for durability.



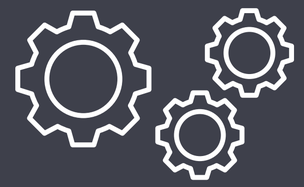
Source: SMP Testing Lab, 2020

Impact on Engine Systems

A worn or malfunctioning ETB may not be able to control the blade as designed — This will lead to decreased fuel mileage and acceleration problems



A rough idle, stalling, or surging are all signs the throttle position sensor may not be functioning properly



ETBs usually fail because of wear on the gear train and bearings from age and mileage — Contamination can also cause an ETB to fail

What's New

ETBs are one of the fastest growing categories in the industry — Standard® is committed to regularly introducing new Electronic Throttle Bodies.

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

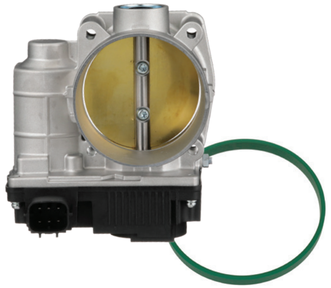
S20449
Hyundai & Kia 2.0L
(2022-15)
VIO: 267K

S20450
Hyundai & Kia V6
(2019-12)
VIO: 638K

S20453
Jeep / RAM 3.0L
(2023-14)
VIO: 225K

Top Movers: Electronic Throttle Bodies

IMPORT APPLICATIONS



S20058
Nissan / Infiniti Cars & SUVs
(2009-02)

S20129
Toyota Cars & SUVs
(2007-03)

S20118
Audi / VW Cars
(2014-09)

S20054
Nissan Cars & SUVs
(2013-07)

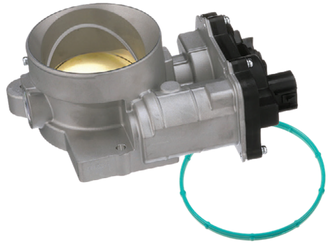
S20183
Nissan Cars & SUVs
(2020-13)

DOMESTIC APPLICATIONS

S20176
Chrysler / Dodge / Jeep
Cars & SUVs
(2018-07)

S20062
Ford / Lincoln
Trucks & SUVs
(2020-11)

S20067
Ford / Lincoln / Mercury
Cars & SUVs
(2022-09)



S20008
GM Trucks & SUVs
(2009-05)

S20068
Ford / Lincoln
Cars, Trucks & SUVs
(2020-11)

Related Parts

In addition to the highest-quality replacement Electronic Throttle Bodies, Standard® offers a full line of key components necessary to repair the electronic throttle control system.

Throttle Position Sensors

Monitors the air intake to the engine and sends information to the vehicle's ECU

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

More than 375 TPS available with coverage through model year 2020

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 output versus pedal position

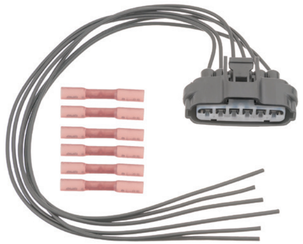
More than 480 APS available with coverage through model year 2023

Variable Intake Manifold Actuators

Controls the 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 2023 for import and domestic vehicles



ETB Connectors

High-quality direct replacement that eliminates the need for a harness, replacing only the damaged connector for a cost-effective repair solution

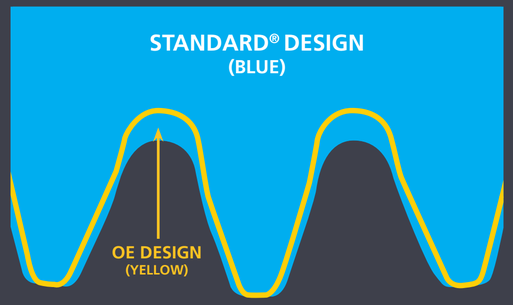
All Standard® Electrical Connectors are 100% tested for proper mechanical and electric fit, form and function

Coverage through model year 2023 for import and domestic vehicles

Engineering Improvements

After identifying weaknesses in the OE electronic throttle body, Standard® engineers capitilized on their extensive gear design experience to develop a stronger, longer-lasting ETB gear. Let's look at how upgrades to Standard® S20176 helped solve the OE problem.

Source: SMP Testing Lab, 2020



Standard® engineers improved the gear stiffness by increasing tooth thickness and decreasing overall tooth length to build a more durable gear

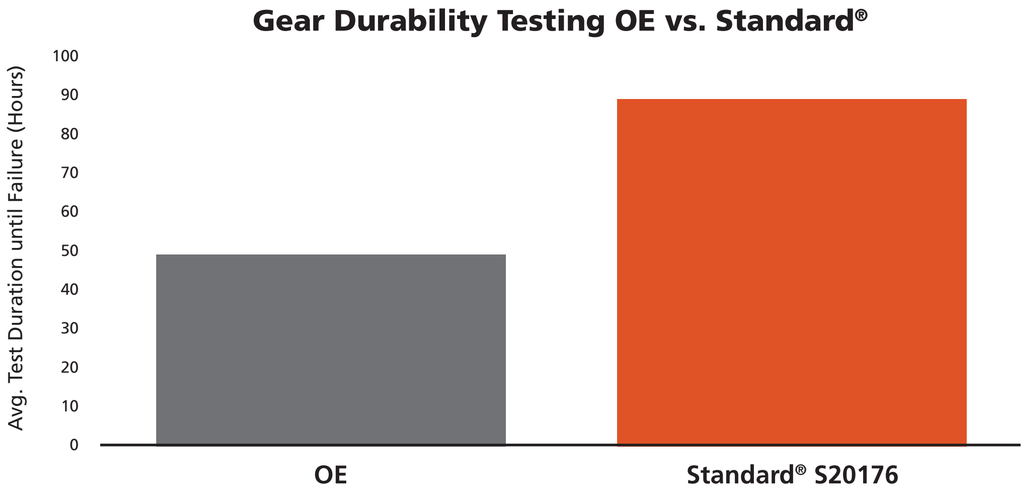
After studying the failed OE unit, we increased face width on the Standard® gear by 17% to reduce stress on the gear teeth

We manufacture gears out of premium application-specific materials to ensure performance in high-load and high-temperature conditions

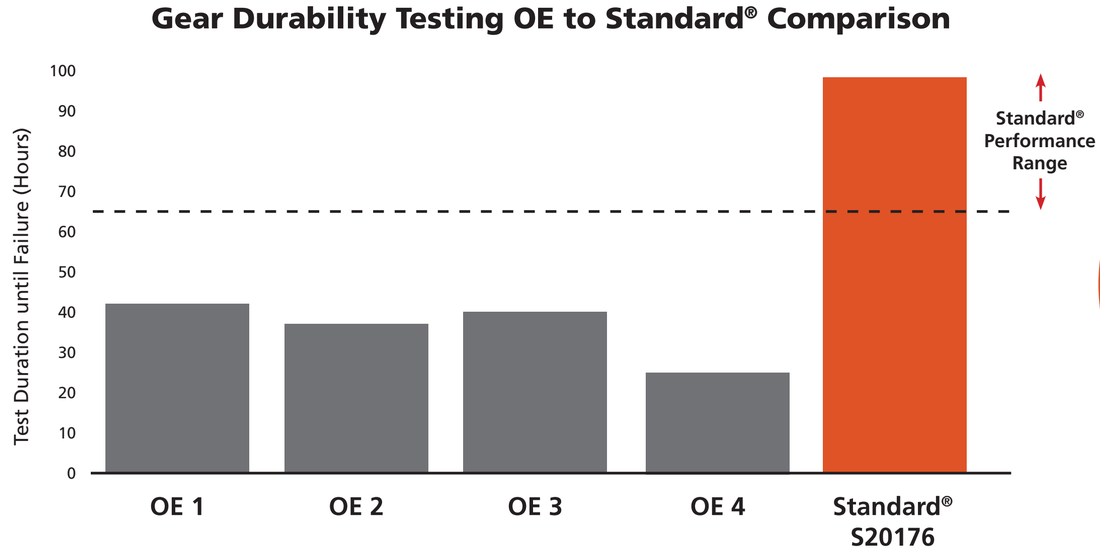
Gear Durability Testing & Results

Standard® engineered design improvements for our premium S20176 replacement ETB for the failure-prone Jeep / Chrysler applications, outperforming the original for durability and service life.

Standard® outperforms the original for durability



Standard® performed 80% better than the OE



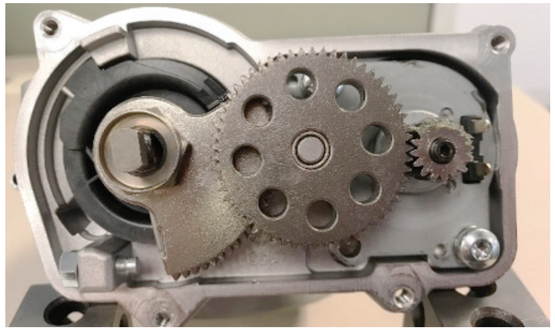
4 out of 5 OE parts failed to measure up to the Standard® design

Source: SMP Testing Lab, 2020

Standard® Engineering

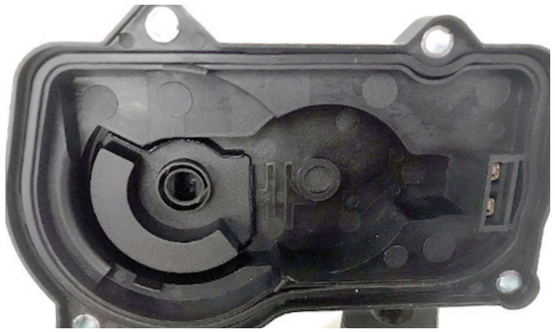
A Closer Look

Premium ETBs start with premium components and innovative design. Here's how Standard® goes the extra mile with our popular S20006 Electronic Throttle Body for late-model GM SUVs and trucks.



Stainless Steel Gears

Standard® gearset is made of stainless steel and conforms to the highest standards of precision for a better-performing ETB



Totally Enclosed Contact Brushes

Our PCB and 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 compression limiters to prevent plastic cracking.

Components Designed to Last Longer

Standard® engineered a large 5mm screw tip to come into contact with the steel gear to resist wear over long-term use

Source: SMP Testing Lab, 2020

Testing and Validation

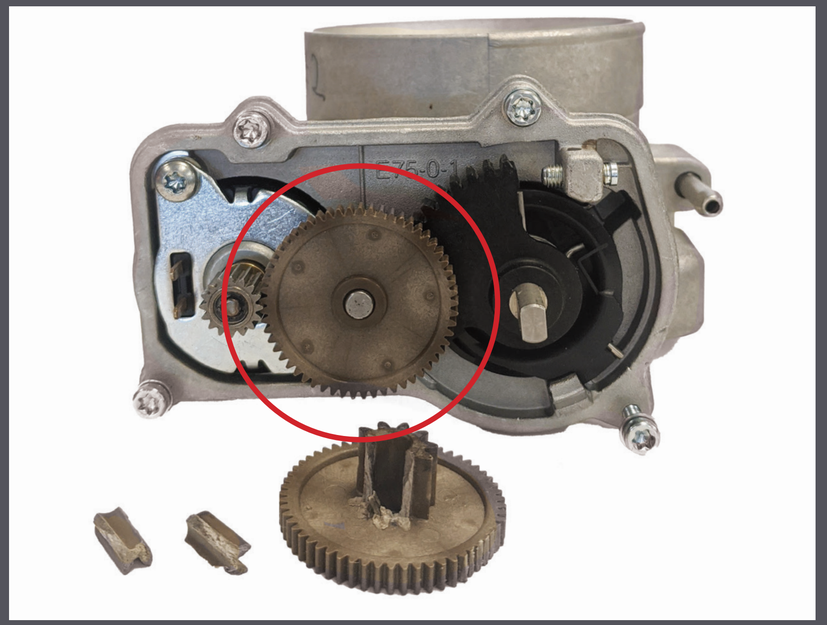
Our ETBs are the result of superior design and the testing proves it.

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

We design and validate our end-of-line testing equipment to make certain every ETB that leaves our facility performs up to our critical standards.

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

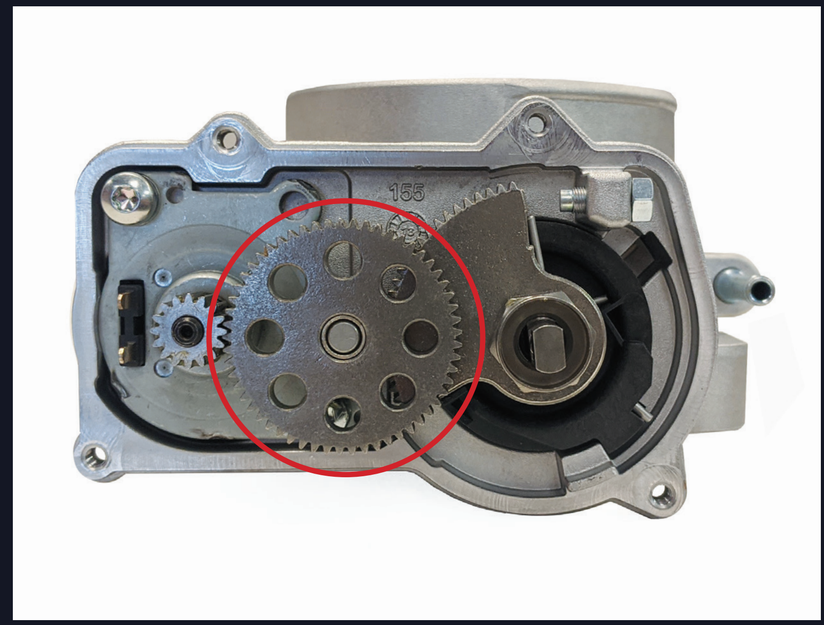
COMPETITION FAILED



After only 10 days of testing, the competitor's ETB failed with a cracked compound gear

Inherent design flaws rendered the competitor's unit unusable

STANDARD S20006 PASSED



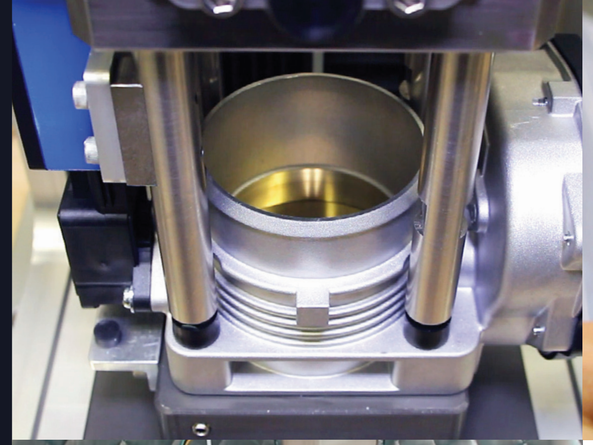
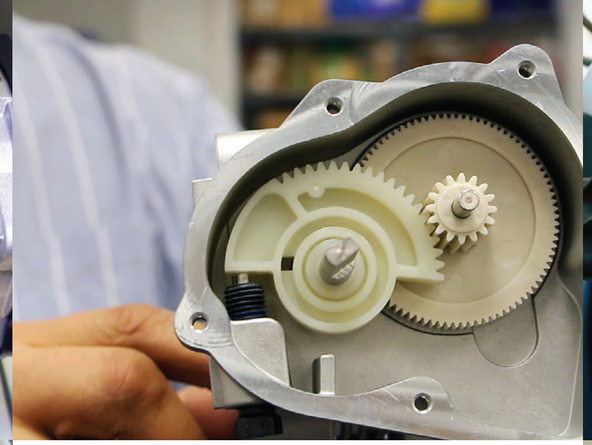
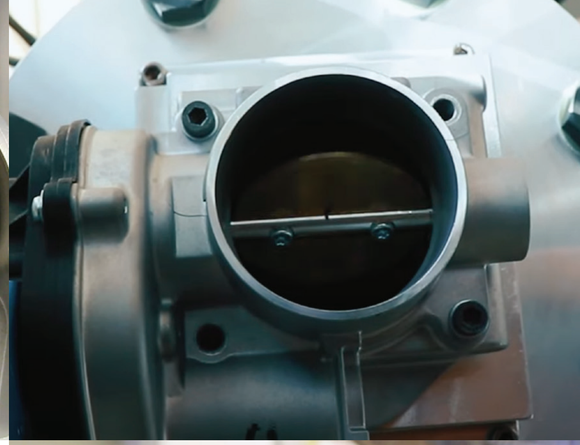
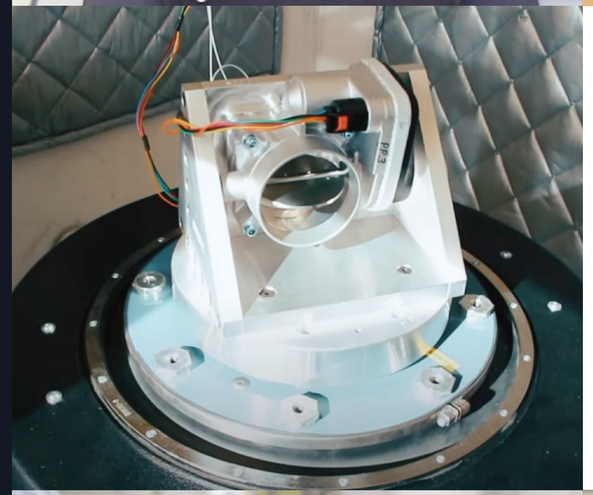
Even after 45 days of endurance testing, our ETB was intact and fully operational

Standard® delivers a premium-quality ETB that performs under the toughest conditions

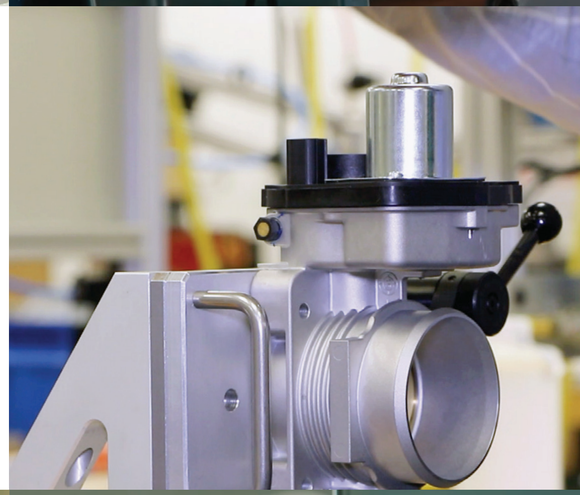
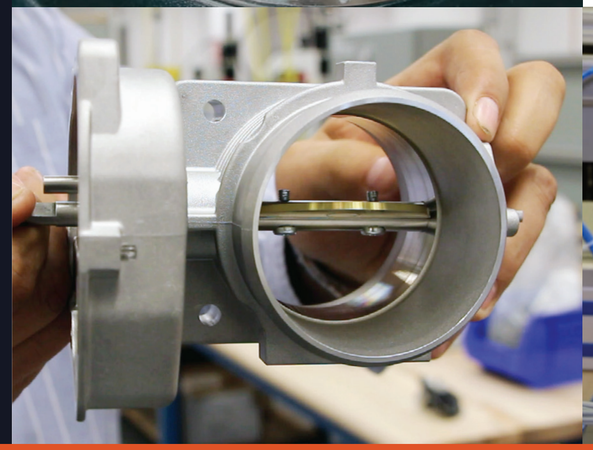
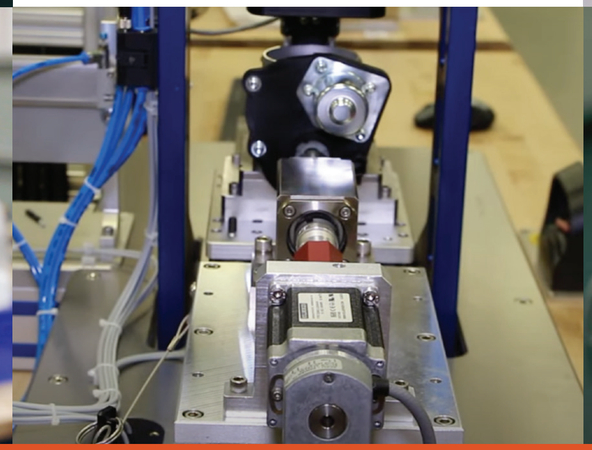
Source: SMP Testing Lab, 2020

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 fit, form and function. Standard® ETBs are application-specific and precision engineered for the units they are replacing.

100% NEW
(Not Remanufactured)
Electronic Throttle Bodies


Standard® Quality

To ensure quality and reliability, every Standard® ETB is 100% new, never remanufactured. Because of this commitment to delivering premium new units, technicians won't encounter comebacks due to worn items in a partial rebuild.

Custom elastomeric seal protects sensor from environmental underhood elements such as dust, vapor, and liquids

As an expert manufacturer Standard® engineers upgrades to failure-prone OE components

New, never remanufactured, which maximizes performance and extends service life

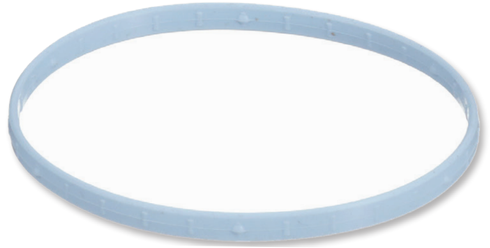
Undergoes extensive testing to ensure quality and reliability out of the box

100% calibration and testing ensure superior performance and durability

All Standard® manufactured ETBs are built in our North American IATF 16949-certified facility

Magnet molded in high-performance polymer to ensure consistent location and low friction with bearing surfaces

Gasket included where required



S20203
Chrysler / Dodge / Jeep / RAM
Cars, Trucks & SUVs
(2022-11)

A Closer Look at Our Premium ETBs

Housing

Our housing is made of corrosion-resistant aluminum and CNC-machined to a surface finish of 0.4 microns. Plus, we use Computational Fluid Dynamic (CFD) software to verify the velocity, mass air flow, and pressure losses through the electronic throttle body.

Gear Train

Designed and simulated using sophisticated gear design software and precision-molded in the U.S.A., our double reduction gear train uses powder metal and plastic materials to prevent gears from becoming overstressed.

Throttle Plate Shaft

Our stainless steel throttle plate shaft is precision-machined and centerless ground to ensure proper alignment of the throttle plate in the throttle bore, and low friction when used with precision needle roller bearings.

Throttle Plate

Our 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 motor's integrated ball bearing helps minimize cogging torque and our dynamometer testing ensures OE-matching performance.

Standard® Pro Training Tech Tip

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 install.

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

For some vehicles, relearning procedures are simple — Operate the engine for two minutes in park with AC off, two minutes in park with AC on, two minutes in drive with AC off, and two minutes in drive with AC on

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 500 technical and installation videos.

PRO TRAINING ON-DEMAND

Available Classes

- Ford Electronic Throttle Control
- GM Electronic Throttle Control
- Diagnosing VW Drive By Wire
- Electronic Throttle Control Fundamentals
- Throttle Body Diagnostics
- Electronic Throttle Control 2023

PRO TRAINING ON-SITE

Available Classes

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

For information on replacing Electronic Throttle Bodies, search “Throttle” on the **StandardBrand** YouTube channel

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