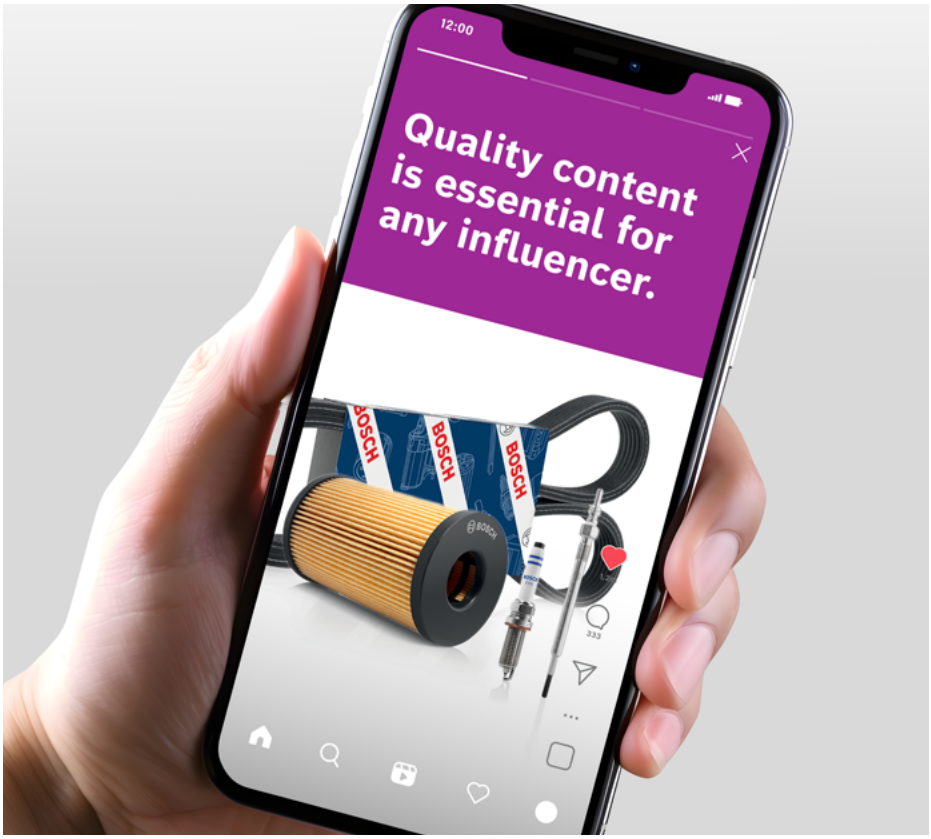
Automotive Insiders: Bosch spark plugs – sparking engines right on time, every time.



In a world of ‘influencers’ – people who use social media to appear as if they’re knowledgeable on a certain subject – Bosch are the real deal. We’re genuine automotive influencers because our in-depth automotive knowledge has been built over 100 years, our innovations have changed the automotive landscape, and our products and services are trusted by millions of customers around the world today.

In our new Automotive Insider series, we find out more about Bosch’s best-known products, by talking to the people behind them. From high-performance wiper blades to bulbs and brakes, our experts lift the bonnet to share how these parts work – their history, how they’ve developed over the years, and how they’re equipping vehicle mechanics and owners to face the future with confidence.

Today we’re talking to Marlene Herlt – the expert behind Bosch spark plugs.

Can you tell us a bit about the history of spark plugs?

Bosch’s influence in the world of spark plugs began over 120 years ago. In 1902, we obtained a patent for the high-voltage magneto ignition system in combination with a spark plug. Since then, spark plugs have gone from strength to strength over the decades. In the 1980s, the center electrode was equipped with precious metal for the first time and in the 2000s Bosch introduced the first double precious metal spark plug with precious metal on both the ground and center electrode, which significantly increased the service life of spark plugs. In 2019 we released the Bosch EVO spark plug specifically for turbocharged gasoline direct injection (GDI) engines.

Today Bosch delivers spark plugs to more than 60 different engine and vehicle manufacturers, offering comprehensive know-how and a wealth of experience in the field of gasoline injection and ignition technology. The quality of Bosch spark plugs speaks for itself – as we’ve been voted Best Brand for 18 years running in Auto Motor und Sport. *Source: (“auto motor und sport“, edition 08/2025)*

“Influencers love a plug. That’s why we’ve been making them for over 100 years.”

Impressive! How does this impact vehicles on the road today?

Bosch have always been active in motorsports – often testing spark plugs on the track before bringing them out into the wider market. The transition from high performance sport to series production is shown in many design features, including the platinum alloy at the electrodes, the cup terminal, the M10 thread and the oriented ground electrode.

Bosch spark plugs are designed for a permanently reliable ignition performance and are developed and produced with years of OE-know how. Thanks to nickel-plated housing and thread, they offer excellent engine protection.

Tell us a little more about the technology behind today's spark plugs

The spark plug plays a key role in the gasoline engine. The main task of the spark plug is to generate the spark to ignite the compressed fuel-air mixture in the combustion chamber. Reliable ignition not only optimizes fuel consumption, but also offers convenient cold-start performance. Spark plugs broadly fall into two categories: those without precious metal (usually nickel) and those with. With over 120 years know how not only in the aftermarket, but also as an original equipment supplier Bosch offers a wide spectrum of spark plugs fitting to almost every common engine.

In today's engines, increased efficiency and turbocharging lead to an increase in combustion pressures. This requires a higher electrical robustness of the spark plugs used or even new materials and designs. These have already been drivers for the development of new electrode and ceramic materials and the associated manufacturing processes. An international team at Bosch is developing these innovations together with raw material suppliers and renowned universities to always be at the cutting edge of technology. New materials, processes and designs are not only qualified with our own tests, but also in cooperation with car manufacturers and their engine and test bench trials.

To equip even the most demanding GDI engines with their spark plugs, Bosch has been offering the EVO spark plug since 2019. For those engines the requirements in the combustion chamber can be classified in four categories:

Electrical

Voltages up to more than 45,000 Volt must not lead to breakdowns at the insulator.

Mechanical

A reliable gas tightness should be ensured at pressures up to 140 bar and the housing should resist against tightening forces during assembly.

Thermal

A resistance to rapid, extreme temperature changes is required: hot combustion gases and cold fuel-air mixture from -40 °C to 150 °C. Good heat dissipation to the cylinder head must be ensured.

Chemical

Resistance to chemical processes in the combustion chamber, even at combustion temperatures up to 2,000 °C, and a resistance to aggressive deposits contained in the fuel is required.

Invented for life

BOSCH

Service Spotlight:

The Bosch EVO Spark Plug

“The Bosch EVO spark plug is our most modern plug used for direct injection turbo charged engines. The new GDI engines required a spark plug to match their capabilities, and the Bosch EVO spark plug does just that, with improved mechanical design features, insulator design features and corrosion protection, plus a longer service life.”

Marlene Herlt,
Product Manager
for spark plugs at Bosch.

About our experts:

Marlene Herlt

Spark plug specialist at Bosch

Having specialized purely in spark plugs for over three years, Marlene has taken on the role of spark plug product manager for the past year and a half.

Choose services with influence.

For more information on Bosch high-performing spark plugs, please visit us at:
boschaftermarket.com