Industrial spark plugs
for stationary gas engines
Industrial spark plugs
Overview

Gas-powered Co-Gen power plants and stationary power generators provide economically generated heat and electricity right at the place where they are needed the most. This can, for instance, be at schools, swimming pools, hotels, hospitals or production facilities. Featuring high quality, Bosch industrial spark plugs to ensure reliable operation of gas engines.

System and component developer
Thanks to its close cooperation with engine manufacturers, Bosch has gained outstanding know-how – concerning components such as spark plugs as well as the sophisticated interactions inside the engines. Thanks to this expertise, Bosch is able to provide a comprehensive aftermarket range of spark plugs suiting almost any engine – including older units.

Technological competence
The aftermarket also benefits from motorsport and original-equipment innovations. Innovative trends and technologies are implemented with the production of spark plugs for stationary gas engines.

High quality
Following the first Bosch spark plug launched in 1902, several other patents have also been filed. These include, for instance, the continuous-wave (CW) laser-welding method which significantly increases the durability of the welded connection on the center electrode. Innovative alloys such as nickel, yttrium and precious-metal that help ensure a long service life. Production procedures such as the heat-shrink assembly, nickel-coated spark-plug housings and threads ensure a high reliability and longer service life.

Service solutions
Bosch developed a professional tool to readjust the electrode of Iridium industrial spark plugs. It allows extending the spark-plug service life and reducing the servicing downtime and costs.

Why to use Bosch seal rings
Seal rings significantly contribute to safety
The seal rings used by Bosch feature minimal dimensional deformation, but they are highly elastic, thus preventing the spark plug from loosening during operation.

In case a spark plug is removed and reinstalled, the seal ring is to be replaced. For this purpose, Bosch recommends using only Bosch seal rings.

Industrial spark plugs
Technology

The SAE terminal receives high voltage from the ignition leads and passes it on to the center electrode.

The connector transmits the high voltage to the resistor.

The insulator isolates the center electrode from the housing thus preventing flashovers.

The spark-plug housing and thread connects the spark plug and cylinder head.

The resistor lowers the spark plug’s spark current and the electromagnetic radiation.

The center electrode with heat-conductive copper core it reaches the operating temperature quickly. It protects against thermal overloads, corrosion and spark erosion.

The seal ring seals the spark-plug housing against the cylinder head, prevents leakages and balances different expansion rates.

The ground electrode influences the service life and heat dissipation.

Electrode gap
The spark gap between the center and ground electrodes.

More than 115 years of Bosch spark plugs

Overview I Industrial spark plugs
Technology I Industrial spark plugs
M18 industrial spark plugs
Product range & details

<table>
<thead>
<tr>
<th>Type</th>
<th>7305</th>
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<td>Iridium</td>
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<tr>
<td>Precious-metal ground electrode</td>
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<td>Adjustable electrode gap</td>
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Advantages at a glance
► First-class ignitability for high performance due to specifically developed precious-metal alloys at the center and ground electrode
► Outstanding engine protection due to nickel-plated housing and thread
► Hassle-free spark plug replacement due to factory-set electrode gap
► High wear resistance due to a highly heat-conductive center electrode
► Reliable thermal characteristics due to heat-shrink assembly

Fitting instructions:
1. Unbox the new spark plug
2. Do not lubricate the thread. Screw in the spark plug by hand until it is seated at the cylinder head.
3. Then turn the spark plug by an additional 90° approximately using a spark-plug wrench.*

* applies to spark plugs with flat seat and new seal

Workshop tip
Fast and correct fitting
1. Select the matching industrial spark plug from the range of products.
2. Screw in the industrial spark plug by hand until it is seated tight at the cylinder head.
3. Then, use a torque wrench to tighten the industrial spark plug applying the torque specified.

M14 industrial spark plugs
Product range & details

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<td>Precious-metal center electrode</td>
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<td>Iridium</td>
<td>Iridium</td>
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<tr>
<td>Precious-metal ground electrode</td>
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<td>Iridium</td>
<td>Platinum</td>
</tr>
<tr>
<td>Electrode gap</td>
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<td>0.5 mm (0.019&quot;)</td>
<td>0.5 mm (0.019&quot;)</td>
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<tr>
<td>Resistance</td>
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Workshop-oriented packaging

Bosch industrial spark plugs are available a single plug or in packs of ten.

Workshop tip
Reduced fitting times thanks to proper installation techniques
Replace the whole set at once
The operating conditions of an engine's individual spark plugs are very similar – as it becomes apparent by their similar wear behavior.

Experience has shown that replacing the whole set of spark plugs is cheaper than having to replace them one by one.

Fast and correct fitting
1. Select the matching industrial spark plug from the range of products.
2. Screw in the industrial spark plug by hand until it is seated tight at the cylinder head.
3. Then, use a torque wrench to tighten the industrial spark plug applying the torque specified.

Thread: M14  Torque: 30 – 40 Nm
Thread: M18  Torque: 50 – 70 Nm
Spark plugs are wearing parts. Their functionality should be checked regularly. The following failures might point at a defective spark plug:

- Loud combustion noises before reaching the operating temperature
- Unevenly running warm engine
- Loss of power
- High spark-plug resistance
- Need for increased ignition voltage
- Increased fuel consumption

Simply readjust industrial spark plugs using the Bosch re-gapping tool:

1. Place the cleaned M18 industrial spark plug into the socket. Make sure, the spark plug housing is properly positioned at the pattern inlay while the back of the ground electrode faces out.
2. Push the lever all the way to the stop and keep up the pressure for a period of time.
3. Release the pressure from the lever and carefully remove the regapped spark plug from the socket.

Advantages at a glance:

- Increase in service life of industrial spark plugs due to accurate readjustment of the original electrode gap
- Reduced service times and costs thanks to its easy operation
- Safe application thanks to integrated force limitation: Prevents overbending of the ground electrode or pushing out the center electrode

The Bosch re-gapping tool is a professional tool for accurate readjustment of the electrode gap of Bosch M18 Iridium industrial spark plugs.

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Product details | Re-gapping tool

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Right tool for the job!

Readjusting the electrode gap without proper tools bears some risks: There are risks of bending the ground electrode too much or to break it off. The electrode can also be set incorrectly or the spark plug can be damaged. Bosch thus developed the re-gapping tool adopting the electrode gapping method used at the production and transferring it to a handy service tool.

Check spark plugs!

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Application | Re-gapping tool
Driven by efficiency

Bosch technologies are used worldwide in almost all vehicles and in a broad range of industrial applications. People, and assuring their mobility, is what we are focused on.

Therefore, we have dedicated the last 125 years of pioneering spirit and expertise in research and manufacturing to achieving this.

We continue to work on our unique combination of solutions for spare parts, diagnostic devices, workshop equipment and services:

- Solutions for efficient vehicle repairs
- Solutions for industrial applications
- Innovative workshop equipment and software
- The world’s most comprehensive range of new and replacement parts
- Large network of wholesale customers, for quick and reliable parts supply
- Competent hotline support
- Comprehensive educational and training offers
- Targeted sales and marketing support

Additional information on Bosch industrial spark plugs upon request:

bosch-automotive-aftermarket.com

What drives you, drives us

Official Distribution Partner of Bosch Industrial Spark Plugs for Europe and Russia