



# Diesel Nozzles

Bosch Engineered for  
Superior Diesel Engine  
Performance



**BOSCH**

Invented for life

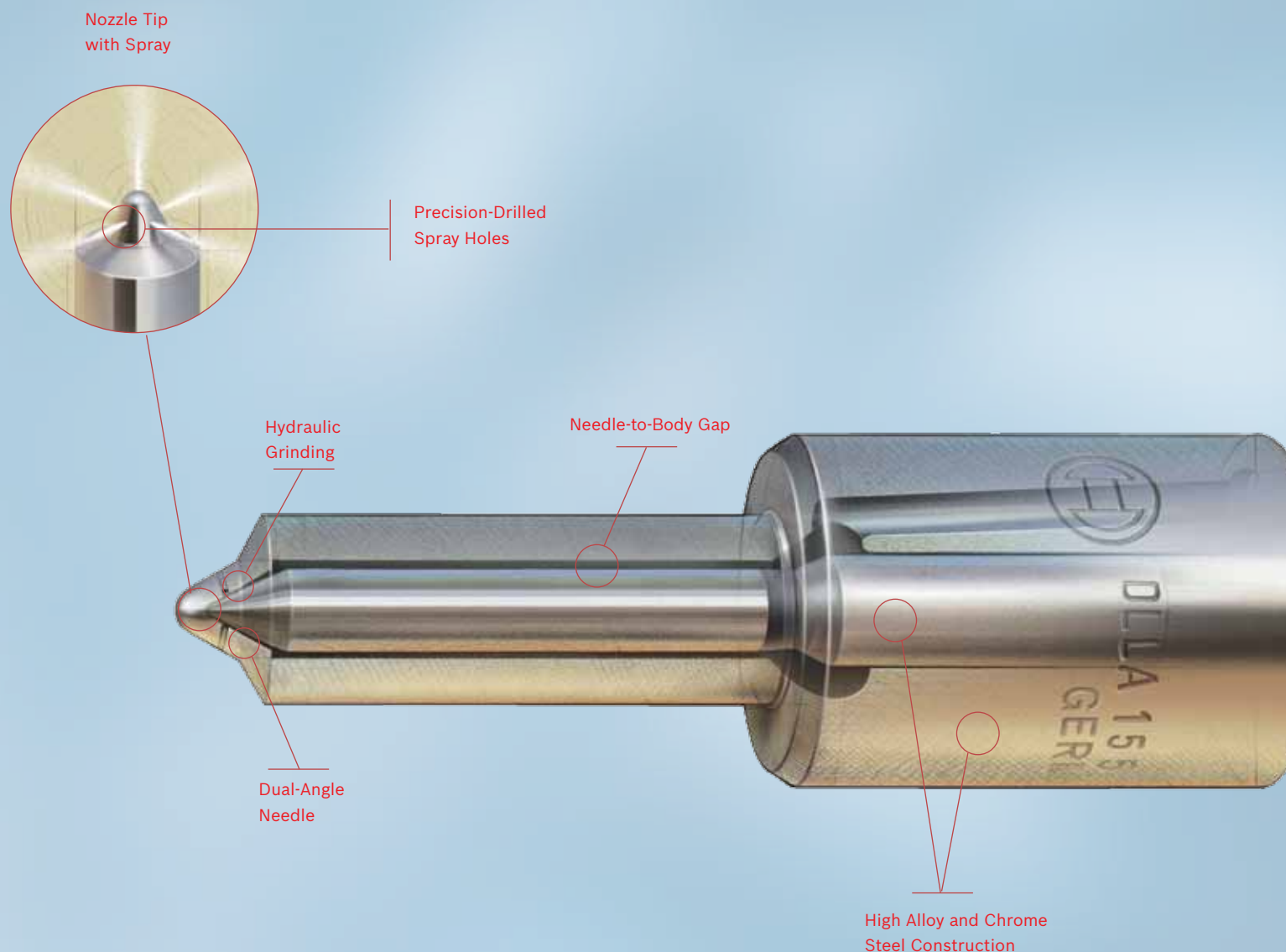


## Bosch Expertise

Bosch is recognized as the worldwide leader in the design and manufacturing of diesel fuel injection systems, with a distinguished history of excellence dating back to 1927. That recognition comes from an unwavering commitment to quality. That quality is the reason why so many engine manufacturers worldwide have chosen Bosch as their OEM nozzle supplier.

AGCO	Iveco
Allis Chalmers	John Deere
Audi	Kabota
Case	Komatsu
CDC	Mack Truck
Cummins	Nissan Diesel
DaimlerChrysler	Navistar International
Ford	Peugot
Fuso	Scania
Hino	Volkswagen
Isuzu	Volvo

## Bosch Engineered for Superior Diesel Engine Performance



## A Word About Reconditioning

Reconditioned nozzles may save money up front, but performance and service life could be sacrificed in the long run.

The grinding that occurs during the reconditioning process alters a nozzle's original needle-to-seat positioning. Even the slightest deviation can alter fuel delivery and cause increased emissions. In addition, the overall hardness of a reconditioned nozzle seat is greatly reduced due to high engine temperatures during its initial service life. Both of these factors can diminish a reconditioned nozzle's overall performance. Are the dollars saved really worth the risk?

## Guarantee

Bosch is so confident in the quality of its diesel nozzles that they're guaranteed for 24 months.

Bosch Diesel Nozzles...Quality built from the inside out for consistently superior performance.

Today's diesel engines must meet the requirements of increasingly stringent legislation regarding power, fuel consumption, noise and exhaust emissions. To comply with these regulations, engines must be equipped with high-performance fuel injection systems.

As a critical component of the diesel fuel injection system, it's the nozzle's function to atomize fuel under extreme pressures (up to 26,000 psi) to ensure perfect combustion, exact emissions and peak engine performance.

On average, each nozzle fires 1,000 times per minute, so precision design and durability are key features. Improperly functioning nozzles can cause hard starting, erratic idle, excessive emissions and poor fuel economy. State-of-the-art Bosch nozzles are designed to withstand the heavy demands of today's diesel engines, delivering a long, reliable service life.

**High alloy and chrome steel construction** assures maximum durability. Additionally, each Bosch nozzle is heat treated to ensure long service life.

**Precision-drilled spray holes** measure exact fuel delivery, providing optimum power with minimum emissions.

**Needle-to-body gap** tolerance is consistently held to  $\pm 0.5$  microns to ensure proper hydraulic performance for maximum fuel efficiency.

**Hydraulic grinding**, an exclusive Bosch process, employs a special abrasive medium to round the edges of the spray hole inlets. Rounding the inlets allows smoother fuel passage, greatly improving the nozzle's fuel flow characteristics and ensuring peak performance throughout its service life.

**Dual-angle needle design** ensures a precise contact point for positive sealing and optimum performance.

## Packaging

Bosch packaging is as innovative as the product inside. Each nozzle comes individually sealed in a tamper-proof, recyclable plastic tube. A unique moisture-absorbing wafer is also placed in the tube to prevent corrosion, promoting long shelf life. The wafer eliminates the need for oil or a wax seal around the nozzle, so it's easier to identify the part inside the tube and every nozzle comes out clean and ready to install. Tubes are packed in convenient master packs of 10 pieces.





### **Install only genuine Bosch diesel components**

Bosch offers an impressive line-up of aftermarket products for diesel fuel injection systems.

### **Bosch Diesel Products**

- Nozzles
- Diesel Gasket Kits
- Glow Plugs
- Hand Primers
- Housings
- Injector Assemblies (new and remanufactured)
- Distributor Heads (new and remanufactured)
- Plunger and Barrels
- Camshafts
- Camplates
- Delivery Valves
- Service Kits



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