# **Engine Direct Water Pipe Cooling Water Return Pipe Joint**

## **Basic Information**

Place of Origin: ChinaBrand Name: Dongfeng

Certification: IATF 16949:2016
Model Number: 1303016-K90M1
Minimum Order Quantity: 100 piece

Packaging Details: Wooden box packaging

Delivery Time: Spot goods

• Payment Terms: T/T

• Supply Ability: Annual production of 500000 pieces



# **Product Specification**

. Country Of Origin: China · Durability: High • Efficiency: Effective • Tensile Strength: High · Color: Black 5 Lbs . Weight: Weather Resistance: Yes Vibration Resistance: Yes

• Cost: Affordable

Certifications: IATF 16949:2016
 Included Components: Bracket, Bolts
 Operating Temperature: -40°C To 120°C

Installation: Bolt-on
 Mounting Location: Engine Block
 Size: Standard



#### **Product Description**

Direct engine water pipe: a key component for efficient cooling

The engine straight water pipe is an important part of the automobile engine cooling system. Its function is to transport coolant from the water pump to the engine and dissipate heat to the radiator, thereby keeping the engine running within a suitable temperature range. This article will provide an in-depth introduction to the structure, function, manufacturing process and application of engine straight water pipes in the automotive industry.

Structure and function:

Engine straight water pipes are usually made of high-temperature-resistant, high-strength metal materials (such as aluminum alloy or stainless steel). Its main structure is in the shape of a straight pipe. One end is connected to the engine water pump, and the other end is connected to the engine coolant outlet or inlet. Through this straight water pipe, the coolant is smoothly transported to the engine and completes the cycle.

Key features include:

Coolant transportation: The engine straight water pipe is the main channel for coolant to flow from the water pump to the engine. When the coolant passes through the straight water pipe, it absorbs the heat generated by the engine, brings it to the radiator for heat dissipation, and then flows back to the water pump to form a cycle.

Heat conduction: When the engine is working, a large amount of heat will be generated. If it cannot be dissipated in a timely and effective manner, it will affect the engine performance and life. The engine straight water pipe conducts the heat in the coolant to the radiator through the thermal conductivity of the metal material, thereby cooling the engine.

Temperature control: The engine straight water pipe also controls the coolant flow speed and direction through its internal structure and design to ensure that the engine can maintain a suitable operating temperature under different working conditions.

Manufacturing process:

Material selection: Engine straight water pipes are usually made of high-temperature and corrosion-resistant metal materials such as aluminum alloy or stainless steel to meet the requirements for use under harsh working conditions.

Stamping: The material is formed into a predetermined shape and size through cutting, forming and other processing processes. Common processing methods include stamping, bending, etc. to ensure the structural integrity and strength of straight water pipes.

Welding and connection: The formed straight water pipe may need to be welded or connected to ensure its tightness and tight connection. Common connection methods include welding, threaded connection and flange connection.

Surface treatment: Finally, straight water pipes may require surface treatment, such as anti-corrosion paint or galvanizing, to improve their corrosion resistance and aesthetics.

Applications in the automotive industry:

Engine straight water pipes are widely used in various types of vehicles, including cars, trucks, buses, etc. As one of the core components of the engine cooling system, they play a vital role in the performance and safety of the car.

With the continuous development of the automobile industry and the advancement of technology, engine straight water pipes are also constantly innovating and improving. For example, some advanced automobiles adopt electronically controlled constant temperature cooling systems that monitor engine temperature in real time through sensors and adjust the flow direction and speed of through-water pipes to achieve more precise temperature control and improve engine efficiency and fuel economy.

Future outlook:

In the future, engine through-water pipes will develop in a direction that is lighter, more energy-saving, and more intelligent. It is expected that more advanced materials and manufacturing processes will be used to meet the increasing requirements of automobiles for performance and environmental protection. At the same time, with the rise of new energy vehicles and electric vehicles, the design and functions of engine through-water pipes will continue to innovate, contributing to the sustainable development of the automotive industry.



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