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Precision CNC Machining Service

With SHENGFA Precision CNC machining service, you can create a rapid prototype in the final production material. To ensure the right prototypes and a smooth transition to real production, you need professional engineers, qualified project managers and skilled operator for support. SHENGFA Hardware is here with a group of experienced staffs to help proving you full precision CNC Machining service. As a manufacturer and supplier who in this business for more than 15 years, we will work together with you throughout the design and production process to get you the parts at a reasonable cost.

Introduction: What Is Precision CNC Machining Service?

For mechanical engineers, R&D teams, and manufacturers that depend on machinery parts sourcing, SHENGFA precision CNC machining service allows complex designs and concepts become reality without any additional manufacturing process. In actual production, it is even regular that the finished parts can be done on a single machine.

The CNC machining process removes materials and uses a lot of cutting tools to create the final design of a part, which is often very complex. The CNC machined parts precision level is decided by the use of computer numerical control (CNC), which is used to automate the control and movement of the machining tools.



The Role of "CNC" in Precision Machining



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Using coded programming instructions, precision CNC machining service allows a workpiece to be cut and shaped to final specifications without any manual intervention by the machine operator. By CAD model, which provided by the customer, our expert machinist uses computer aided manufacturing software to make the steps and movements for manufacturing the part customer need. Based on the CAD model, the software determines what tool paths are needed and generates the programming code that tells the CNC machine:

What the correct RPMs and feed rates are

When and where to move the tool and/or workpiece

How deep to cut

When to apply coolant

Any other factors related to speed, feed rate, and coordination

Our CNC controller then uses the programming code to control, automate, and monitor the movements of the machine.

The Features and Advantages of Precision CNC Machining Service

Nowadays, CNC is a built-in feature of a wide range of equipment and function, from lathes, mills, and routers to wire EDM (electrical discharge machining), laser, and plasma cutting machines. In addition to automating the machining process and enhancing precision, CNC eliminates manual tasks and frees machinists to oversee multiple machines running at the same time. What's more, once the tool path has been designed and a machine is programmed, it can run a part any number of times. This advantage comparing to traditional manufacturing process provides a high level of precision and repeatability, which makes the process highly cost effective and scalable.