New energy battery shell stretching die

What is energy long cell battery shell?
The new energy long cell battery shell developed and produced by our company adopts a cold bending forming+high-frequency welding process,which breaks through the constraints of traditional deep drawing/extrusion processes and overcomes the welding technology of ultra-thin aluminum shells.

What is the new energy vehicle long cell battery shell sector?
The new energy vehicle long cell battery shell sector,as the company's main strategic development directionin the future,will become the main sector for the company's transformation from the traditional automotive industry to the new energy vehicle industry.

What are the disadvantages of a stretched shell?
The stretched shell is affected by the ductility of aluminum,with a minimum thickness of only 0.6mm,heavy weight,and low heat dissipation efficiency. The tensile limit length is below 370mm,and the optional size range is relatively narrow. Low dimensional accuracy and poor surface qualityof the stretched shell.

What are the disadvantages of aluminum battery shell?
Low tensile strength and hardnessof the aluminum shell of the power battery can lead to low compressive strength and hardness,and the profile is prone to curved and tortuous shapes. Impact on battery stability High-frequency Welded Long Cell Shell Battery Pack

How does a battery pack work?
Good structures: PACK is designed on the upper and lower sides of the battery cell, using structural adhesive to stick two high-strength plates, forming a structure similar to honeycomb aluminum plates, allowing each battery cell to serve as a structural beam.

Batteries with high energy densities become essential with the increased uptake of electric vehicles. Battery housing, a protective casing encapsulating the battery, must fulfil competing ...

The new energy battery shell stretching press and the new energy battery shell press production line comply with the rapid development needs of new energy vehicles and smart phone batteries. With the concept of "innovation", we have designed and developed a complete set of automatic multi-station stamping equipment, which has been successfully ...

The invention relates to the technical field of automatic production lines of power battery molds, in particular to a power battery square shell stretching mold which comprises a bearing...

The process of energy storage battery shell die stamping and stretching includes multiple steps. First, the metal sheet is cut into parts of the required shape by die stamping. Then, the parts are stretched to a larger size using

die stretching to meet the requirements of the energy storage battery. This process requires precise control to ...

The new energy battery shell stretching press and the new energy battery shell press production line comply with the rapid development needs of new energy vehicles and smart phone batteries. With the concept of "innovation", we have designed and developed a complete set of automatic multi-station stamping equipment, which has been successfully applied to the field of battery ...

The invention relates to the technical field of battery square shell trimming dies, in particular to a power battery square shell stretching trimming die which comprises a loading and...

The processing of aluminum battery shell adopts tensile process, which is to process aluminum alloy plate and strip into specific size, shape and depth products through special hard alloy tensile die blanking - multiple stretching - cutting - fine drawing process, and the production efficiency of tensile process is high.

The new energy battery shell production line is transmitted to each press punching machine through the hoist for multi-station stretching, which reduces the ...

in this paper, the battery module is equivalent to a simple geometric entity with equivalent weight [16]. The physical object of the BPE and 3D modeling are shown in Fig. 1. Fig. 1a shows the appearance of the battery, Fig. 1b shows the internal structure of the battery, Fig. 1c shows the implified model for 3D modeling of the battery shell. 2. ...

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The agreement for the Bramley Battery Energy Storage System (BESS) will further enhance Shell"s electricity supply and demand management capabilities and support the UK"s ongoing energy transition. The Netherlands hits offshore wind target of 4.5 GW with Hollandse Kust Noord wind farm. Dec 20, 2023. The construction of the Hollandse Kust Noord ...

The invention discloses a special female die device for stretching and forming a cylindrical battery steel shell, which belongs to the field of battery steel shell processing and comprises a bottom ...

The die includes a stepped punch as a male die, at least one thinning ring as a female die, and a variable-wall-thickness stretching step, which belongs to the thinning ...

The utility model relates to the technical field of stretching dies and discloses a precision new energy battery shell part stretching die which comprises an upper die holder and...

For the new energy battery shell of 4680 series, in order to ensure the sealing effect, an upset-extruded step

structure was designed at the bottom of battery shell, and after the process test verification, the forming of bottom step required a three-step process of prepunching of bottom hole, forging and fine-punching of bottom hole. Then, aiming at the problem of burrs in one ...

The utility model discloses a new energy battery shell stamping die which comprises a lower die holder, wherein the lower die holder is arranged at the upper end of the lower die...

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