

A FPC LAMINATING WORKING TABLE

Technical field

The utility model relates to the technical field of FPC processing equipment, specifically refers to an FPC laminating working table.

Technique Background

FPC is the abbreviation of Flexible Printed Circuit, also known as flexible circuit board, with reliability, flexibility, light weight, thin thickness, high wiring density characteristics. In the field of FPC flexible circuit board processing, often need to fit auxiliary materials (double-sided adhesive, insulation coating, reinforced panels, electromagnetic shielding film, etc.), attached to the copper foil substrate to achieve their respective role. These materials through the need to fit to the FPC, because the FPC is relatively small, soft, thin, need to be adsorbed on the table, the current practice in the industry or artificial heating Laminating, so this is not only the efficiency of low precision , But also easy to damage the device, high labor costs, low efficiency.

Utility model content

In order to solve the above-mentioned problems, the utility model provides a FPC Laminating working table having a simple structure and convenient operation for high production efficiency.

The heating station is provided with a heating pipe, a heating table, a heating table, a heating table, a heating table, a heating table, and a heating table. The heating table is provided with a heating table, And a heat transfer structure in which a rotary connecting plate is provided under the heat insulating structure; a rotary connecting plate provided below the rotating connecting plate to directly drive the motor; a direct drive motor, the hollow of the direct drive motor A slip ring fixing block in which a moving table is arranged under the slip ring fixing block, a moving table is arranged, and a slide ring is provided on the upper surface of the slip ring, The mobile table is provided with an air passage.

Further, the heat insulating structure is composed of a heat insulating plate, a heat insulating column and a hollow insulating block.

Further, the direct drive motor, the hollow slip ring, the hollow passage of the hollow heat insulator, and the air passage of the moving table, and the air pipe joint constitute the gas path structure.

Further, the suction platform comprises a suction panel and an aluminum plate together to form a table having an inner cavity and a suction hole.

Further, the gas path structure and the suction platform together form a suction structure, thereby realizing the adsorption and fixing of the circuit board.

According to the FPC lamination equipment table provided by the utility model, the suction table and the aluminum base plate together form a working table with the cavity and the suction hole through the suction platform, and the suction platform is connected with the hollow zero, The device formed by the closed air passage, and through the silicone soft tube by the towline connected with the exhaust fan, the exhaust pipe when working away from the cavity and the air in the channel into a vacuum, resulting in poor pressure, the FPC adsorption on the suction platform The

Underneath the suction platform is a heating platform consisting of a heating pipe and an aluminum plate. The heating plate is rapidly heated to the suction platform and FPC, and the Laminating temperature is maintained.

Heating the heat down the platform will affect the direct drive motor to work properly, it is necessary to block, the use of lower thermal conductivity of the insulation material and overhead way insulation, hollow insulation junctions are connected, The role of the channel.

Rotating, high-torque, high-precision direct drive motor drive table rotation angle to meet the best fit position, hollow slip ring installed in the direct drive motor hole, as part of the entire airway connection, while solving the gas and Circuit, the slip ring stator is fixed on the base of the moving table by means of a mounting block. The base is drilled with a deep hole air passage. The airtight ring is connected to the

silicone gas pipe. The slip ring is composed of a slip ring fixed to the rotary table Pull the lead, with the table and direct drive motor rotation.

The FPC FPC Laminating working table provided by the utility model is simple in construction, and has the advantages of low speed and high torque, high precision positioning, high response speed and reduced mechanical loss, so the precision of the product can be guaranteed and improved Production efficiency, reduced labor costs.

Description of the drawings

Figure 1 is an exploded view of the overall structure of the utility model;

Figure 2 is an overall left view of the utility model;

Figure 3 is an assembly diagram of the utility model;

detailed description

The present invention will be described in further detail with reference to the following examples, in order to make the technical problems, technical solutions, and advantages to be solved in the utility model. It is to be understood that the specific embodiments described herein are merely illustrative of the utility model and are not intended to limit the utility model.

1, the utility model provides an FPC Laminating apparatus table including a suction table 1, a heating table 2, a heat insulating plate 3, a heat insulating column 4, a rotary connecting plate 5, A hot block 6, a direct drive motor 7, a slip ring pad 8, a hollow slip ring 9, a slip ring fixing block 10, a moving table 11, an air passage 12, a heat pipe 13, an air pipe joint 14, Aluminum plate 16.

A heating table 2 is provided below the suction table 1, a heat insulating plate 3 is arranged below the heating table 2, a heat insulating column 4 and a hollow insulating block 6 are arranged below the heat insulating plate 3, and the insulating column 4 and the hollow insulating block 6 A rotary drive plate 5 is provided, a direct drive motor 7 is provided below the rotary connecting plate 5, a hollow slip ring 9 is provided in the middle hole of the direct drive motor 7, a slip ring pad 8 is arranged

above the hollow slip ring 9, and a slip ring fixing block 10, a moving table 11 is provided below the slip ring fixing block 10, and an air passage 12 is provided in the moving table 11. As shown in Fig.

The heat insulating plate 3, the heat insulating column 4 and the hollow heat insulating block 6 collectively form a heat insulating structure to reduce the heat conduction of the heating table 2 to the direct drive motor 7 and to protect the normal operation of the direct drive motor 7. As shown in Fig.

The direct drive motor 7, the hollow slip ring 9, the hollow passage of the hollow heat insulator 6, and the air passage 12 of the moving table 11, and the air pipe joint 14 constitute a gas path structure.

The suction platform 1 is composed of a suction panel 15 and an aluminum plate 16 together to form a table having an inner cavity and a suction hole.

The airway structure and the inhaling platform collectively constitute a suction structure, thereby realizing the adsorption and fixing of the circuit board to prevent the circuit board from being displaced and affecting the machining precision.

The heating table 2 is composed of a heat pipe 13 and an aluminum plate 16, and is rapidly heated to the suction platforms 1 and FPC through the aluminum plate 16 during heating to maintain the Laminating temperature.

In the following description of the operation of the utility model, the operator first places the FPC on the suction platform 1, and then the operator opens the device switch, the suction structure is adsorbed by the FPC, and the heating table 2 is quickly heated to the suction Gas platform 1 and FPC, keep the Laminating temperature, direct drive motor 7 drive the table to the desired processing position, so as to fit the auxiliary material, complete a sub-material fit.

As described in the above specification, only the preferred embodiment of the utility model does not limit the utility model, and any simple modification and variation in accordance with the essence of the utility model belongs to the range of protection required by the utility model.

CLAIMS:

1. An FPC laminating working table, characterized by including: a suction platform, a heating table, a thermal insulation structure, a rotary connection plate, a direct drive motor, a hollow slip ring, a slip ring paddle, a slip ring fixing block , Mobile workbench and tracheal fitting,

a heating table is arranged below the suction platform,

the heating table is provided with a heating pipe, a heat insulating structure is arranged under the heating table,

a hollow electro-mechanical ring is arranged below the heat insulating structure,

a direct drive motor is arranged below the rotary connecting plate,

a rotary connection plate is provided in the direct drive motor intermediate hole,

the slip ring is arranged above the hollow slip ring, the slip ring fixing block is arranged below,

a moving table is arranged below the slip ring fixing block,

the mobile table is provided with an air passage.

2. A FPC laminating working table as claimed in claim 1, characterized in that said heat insulating structure is composed of a heat insulating plate, a heat insulating column and a hollow insulating block.

3. The FPC laminating working table of claim 1, further comprising a gas path structure consisting of a direct drive motor, a hollow electro-mechanical ring, a hollow passage of a hollow insulation block, Mobile table of the gas passage and the trachea joints.

4. A FPC laminating working table as claimed in claim 3, characterized in that said suction platform comprises a suction panel and an aluminum plate which together form a table provided with internal and suction holes.

5. A FPC laminating working table as claimed in claim 4, characterized in that said

gas path structure and said suction means cooperate to form a suction structure, thereby effecting the adsorption and fixing of the circuit board.