

QWISE-HJ-YXYZZDS-2019

Company Standard

Hunan WISE New Material Technology Co., Ltd.

Steel Bonded Carbide sub-factory

Shaped press forming process

Operating instructions

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Shaped press forming

1 main raw and auxiliary materials

1.1 Main raw materials: each grade is mixed with rubber and wax.

1.2 Main auxiliary materials: molds and limiters.

2 major equipment and tools

2.1 Main equipment: Y41-25A25 tons single column hydraulic press.

2.2 Main tools: balance, caliper, platform scale, tray, steel ruler, stainless steel plate.

3 job quality requirements

3.1 Work must strictly comply with equipment safety techniques and operating procedures.

3.2 The single weight and size of the compact shall comply with the requirements of the Notice of Compression Conditions.

3.3 The compact shall have a certain strength and density, and shall not have delamination, cracks, uncompressed, corners, adhesives, etc., and the burrs shall not be too large.

4 steps and essentials

4.1 Sampling suppression of mass identification

4.1.1 The rubber compound, the back-mixed rubber (SBP) material, or the wax-doped material shall be sampled according to the requirements of the quality inspection group. The sampled blank shall not have delamination, cracks, uncompressed and other non-conforming products. After the sample is qualified, the presser can be used for normal production after stamping the qualified chapter.

4.1.2 Special reasons are required for urgent use of materials, and must be approved by the branch before they can be sent.

4.2 Preparation before pressing

4.2.1 According to the model to be produced, go to the die-cutting storage group to receive the corresponding mold according to the “pressing condition notice”, check the model of the mold, the matching of the punch, etc., and confirm it and register it in the “issuing mold record”.

4.2.2 The punch and the bottom pad can be polished from coarse to fine on the polishing machine with gauze, oil stone, silk cloth and the like. The polishing process can repair the punch and the

bottom pad slightly, but it is not allowed to destroy the basic shape. If only the shape of the punch is changed greatly, the approval of the pressure tester must be obtained. For some molds with complex shapes and poor finish, the molds are stored and returned to the mold factory for processing.

4.2.3 Picking according to the production order, and check the brand number, batch number, production model and mold model one by one.

4.2.4 Prepare the tools and calibrate the balance, caliper and platform scale.

4.2.5 Turn on the power, start the press, observe the operation of each component and the position of the indenter when parking. Then adjust the position of the indenter according to the height of the mold, adjust the pressing pressure according to the single weight of the compact, and then idle the press several times, after all normal, the production can be carried out.

4.3 suppression

4.3.1 Press the single weight and size selection limiter on the "Suppression Condition Notice" (valid for 30 days).

4.3.2 First press out 5~10 compacts, check the single weight, size, compact density and whether there are delamination, crack, uncompressed, adhesive and other non-conforming products, and judge the problem. If the problem cannot be grasped, it is necessary to carry out a trial burn. If you find that there is a problem, first of all you have to debug it yourself. If you can't solve it, you should contact the team leader and the craftsman in time. After the team leader confirms, you need to solve the problem and reflect the problem to the section.

4.3.3 In addition to strict control in accordance with the requirements of the "Repression Conditions Notice", the height deviation of the product shall be controlled. For the drilling teeth, the pressing height deviation is controlled within 0.1 mm, and the composite sheet (FC/FX type) is controlled within 0.2 mm.

4.3.4 When pressing, the weighing force should be accurate. When loading, the object wall should be hit with the object, and the historical material should be evenly loaded. For the blank with poor tip density, the method can be solved by adding the top material. The suppression of the compacts with too large a difference in conditional notices should be achieved by means of two-way pressurization such as a pad saw blade.

4.3.5 The film removal speed should be fast and keep the mold smooth.

4.3.6 During the pressing process, the operator should check the quality of the blanks in each tray. The number of inspections is more than 5 pieces. The inspection contents are mainly: single weight, size, delamination, crack, and not pressed. Pay attention to some hard-formed compacts. Also requires that the semi-finished burrs should not be too large.

4.3.7 During the pressing process, the normal rubber compound and the back rubber compound should be strictly distinguished. The rubber compound should be marked with the words "back rubber" on the production transfer card, and the normal rubber mixing and back mixing rubber mixing are not allowed. (Reincorporated SBP material is not subject to this limitation).

4.3.8 Waste blocks should be broken, sieved in the 355~560 μ m (40~30 mesh) pore size range, and mixed into the same batch as much as possible. Mix well and reuse again. The proportion is not more than 20%. For the return materials that cannot be used in time, it should be identified and kept. The return time of the returned material is more than 15 days to report to the branch factory for processing; the bulk block material caused by suppressing the non-conforming product, within 30kg, can be used after the block material is broken and reused. If it exceeds this range, it will be

reported to the branch for review and processing.

4.3.9 Place the pressed compacts neatly in a stainless steel plate, the distance between the compacts, and the method of loading should not damage the compact, but it should not be too full, and the edges of the plates should be at least 2cm apart. And the weight of each blank is not more than 10kg. For the blanks with easy corners, the newspaper and foam should be placed on the plate.

4.3.10 According to the blanking category (rubber technology, paraffin process, overseas products), select different cards to fill in the specifications, and then add the words "back-mixed rubber" on the card (the back-mixed SBP material is not subject to this restriction).).

4.3.11 When each plate is full, put it on the scale and weigh it. Place the "production transfer card" and "quality feedback card" on the plate. Check the qualified blanks and confirm them by the craftsman. Non-conforming products shall be handled on duty; for the pressed blanks to be judged, the process inspectors shall mark and test the fire, and take out the treatment opinions within 2 days.

4.3.12 The mold for pressure loss or quality problems shall be marked so that the mold can be processed for mold storage.

4.3.13 In the production process, the quality of the working environment should be guaranteed, and closed production should be carried out. The operating room is not allowed to open the window, and the materials should be covered at any time. Cover materials, tools and equipment when constructing and overhauling at the work site. Production should be stopped if necessary.

4.3.14 Analyze the contents of the "Quality Feedback Card" returned by the semi-addition and semi-inspection procedures, and then adjust your operation or make pressure.

4.3.15 After pressing, turn off the equipment, clean the tools, feed the returning bucket and cover the lid.

4.3.16 Do a good job in civilized health, fill out the "original record of production", "diary of the handover class" and open the product transfer documents.

4.4 Process parameters and management priorities

4.4.1 The single weight and size of the compact shall comply with the requirements on the Notice of Compression Conditions.

4.4.2 The operator shall self-test as required and conduct a spot check on each blank.

4.4.3 Operating environment can guarantee product quality requirements.

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