

HST-XYZ4030A CNC Specimen Making Machine



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HST-XYZ4030A CNC prototype is used to make sample blocks or splines for material testing on non-metallic raw materials. It can process dumbbell-shaped, rectangular, and circular splines, as well as notches for impact splines. It can mill irregular planes into flat plates.

Using CNC technology, the three-axis linkage system is controlled by a program controller, driving the XYZ axis motor and supplemented by a high-speed spindle motor to form a high-precision processing system to achieve the processing of various graphic samples.

Processable graphics

1. Dumbbell spline processing. Almost all standard dumbbell spline production is supported. The dumbbell graphics program is built into the software. The processing is selected through the operation interface. The user does not need to compile the processing program by himself. The operation is simple and easy to learn. Special shape programs can be customized by contacting the manufacturer.
2. Rectangular spline processing. The most common is the 80*10 impact spline. Select rectangular processing in the software, enter the length and width of the rectangle and other necessary parameters, and then the processing can be carried out.
3. Circular sample block processing. The most commonly used is the circular Vicat temperature test sample. Select circular processing in the software, enter the diameter of the circle and other necessary parameters, and then the processing can be carried out.

4. Straight line cutting. The cutting operation can be manually controlled, or the straight line processing function in the program can be used to realize the cutting operation of the plate.
5. Notch processing. The splines used for simply supported beam or cantilever beam impact tests often have standard notches. This machine is equipped with standard notch milling cutters of R0.1, R0.25 and R1.00, which can mill three types of standard notches on the splines.
6. Plane milling. Materials with irregular surfaces can be milled into smooth planes; select plane processing in the software, enter the length, width and thickness of the milling surface, and the plane processing function can be realized.

Equipment standard configuration

1. Industrial computer touch screen control to achieve linear motion, interpolation motion and other processing actions.
2. Electronic handwheel. The equipment is equipped with an electronic handwheel to achieve precise spindle position adjustment.
3. Tool setter. Equipped with a Z-axis tool setter to achieve automatic Z-axis tool setting, which is accurate and time-saving.
4. Standard single-edge, double-edge milling cutters and gong cutters are suitable for processing a variety of materials.
5. Two types of tooling are configured, one is a straight pressure plate and the other is a well-shaped pressure plate, which is suitable for clamping materials in different forms.

Special functions

1. High processing accuracy and fast speed.
2. Process multiple splines at a time. For example, dumbbells, rectangles, and circles can be processed on the same piece of material, and all processing can be completed at one time.
3. It has a material water cooling function. Cooling water can be used to cool materials that heat up and melt during processing.
4. Processing compensation function. It can compensate for the errors caused by thermal expansion of materials and compression during mechanical processing.

Main technical parameters:

- 1 Maximum processing length: 400mm
- 2 Maximum processing width: 300mm
- 3 Maximum processing thickness: 10-40mm

- 4 Spindle motor speed: 24000r/min
- 5 Accuracy resolution: 0.003mm
- 6 Tool speed 100~3000mm/min adjustable.
- 7 Main machine size: 971×640×622mm (length×width×height)
- 8 Machine weight: 65kg

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