MODYFICATION OF TOOL CENTER POINT HOLE WORKPIECE WITH MAXIMUM WEIGHT LESS THAN 29 KILOGRAMS FOR CNC MILLING MACHINES

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Abstract

CNC milling machine can be used as a point device center hole just by adding a tool center point is placed at the tool holder. Pointer tool center point is made with simple forms and mechanism of this tool with a chuck lathe tool but this tool workpiece gripping holes. In this tool and an experiment performed on the workpiece measurement, analysis calculations for the maximum thrust generated by chuck and power needed.

After the experiment and measurement carried out and the calculation of this tool results indicate that a minimum hole diameter of the workpiece which can be entered by this tool is 100mm, minimum depth of the workpiece hole is 60mm, this chuck tool step as far as 10mm, maximum thrust generated by chuck for 28,449N and maximum weight of workpiece less than 29kg by using the motor with the power of 0,04HP – 30watts.

Keywords : tools, bookmark the center, the hole workpiece, CNC Milling machines, the maximum force, the maximum weight of workpiece, power.