WHAT IS CLAIMED IS:

1. A laser processing apparatus for processing a plate-shaped workpiece by applying a laser beam to the workpiece, the laser processing apparatus comprising:

a cassette table for placing thereon a cassette in which a plurality of workpieces are accommodated;

carrying-out means for carrying out the workpiece from the cassette placed on the cassette table;

temporary placing means for temporarily placing the workpiece carried out by the carrying-out means;

carrying means for carrying the workpiece from the temporary placing means to a chuck table;

a moving base for supporting the chuck table;

imaging means for detecting a region to be processed of the workpiece held on the chuck table;

X-axis direction moving means for moving the chuck table in an X-axis direction;

Y-axis direction moving means for moving of the chuck table in a Y-axis direction orthogonal to the X-axis direction; and

laser beam applying means for applying a laser beam to the workpiece held on the chuck table,

wherein the moving base is formed from a carbon fiber-reinforced plastic.

2. The laser processing apparatus as defined in claim 1,

wherein the X-axis direction moving means includes an X-axis table having an X-axis guide rail for guiding the moving base in the X-axis direction, and a drive source for moving the moving base, and

the Y-axis direction moving means includes a Y-axis guide rail for guiding the X-axis table in the Y-axis direction, and a drive source for moving the X-axis table.

3. The laser processing apparatus as defined in claim 1, wherein the carbon fiber-reinforced plastic has a specific gravity of approximately 1.5 to 2.0.