WHAT IS CLAIMED IS:

1. A processing machine comprising:

a chuck table having a holding surface that holds a workpiece thereon;

a chuck table cover enclosing surroundings of the chuck table and having an opening through which the holding surface of the chuck table is able to protrude;

a processing unit including a spindle, a spindle housing that rotatably holds the spindle therein, and a disc-shaped mount portion arranged on a lower end portion of the spindle, the lower end portion projecting from the spindle housing, the processing unit being configured to process the workpiece by a processing tool mounted on a lower part of the mount portion;

a processing feed mechanism that feeds the processing unit in an up-down direction to perform processing;

a processing chamber construction cover that covers the chuck table and the mount portion; and

a processing tool cover that is secured to a lower end portion of the spindle housing, the lower end portion being located inside the processing chamber construction cover, has an upper wall defining an insertion opening through which the spindle is able to be inserted at the

lower end portion thereof, and a side wall that is connected to the upper wall and extends downwardly from the upper wall, is disposed inside the processing chamber construction cover, and covers the processing tool from above and sides by the upper wall and the side wall,

wherein a cut-out portion is formed at a part of a lower end portion of the side wall, said cut-out portion formed in a range that transversely crosses the opening of the chuck table cover.

2. The processing machine according to claim 1, wherein the processing tool cover is secured to the lower end portion of the spindle housing in a manner that allows detachment of the processing tool cover from the spindle housing.

3. The processing machine according to claim 1, further comprising:

an exhaust unit including an exhaust duct that is connected at an end portion thereof to the processing tool cover and at an opposite end portion thereof to a suction source.

4. The processing machine according to claim 1, wherein

a height position of an upper edge of the cut-out portion is located higher than a height position of lower

surfaces of grinding stones of a grinding wheel; and

a height position of the lower end portion of the side wall in a range where the cut-out portion is not formed is located lower than the holding surface.

5. The processing machine according to claim 1, wherein an upper surface of a porous plate of the chuck table is a conical surface.

6. The processing machine according to claim 1, wherein an upper surface of a porous plate of the chuck table is a planar surface.

7. The processing machine according to claim 2, wherein

a flange portion is located at the lower end portion of the spindle housing, and

an upper wall of the processing tool cover is secured via fixing members to the flange portion.