

ABSTRACT

A vacuum pump that is suitable to achieve uniformity of pressure in the chamber and improve the compression ratio, and a vacuum exhaust system using the vacuum pump.

A vacuum pump includes: a cylindrical inner housing; a cylindrical stator placed outside the

5 inner housing; a cylindrical shaft rotationally disposed between the inner housing and the

stator; a motor configured to drive and rotate the shaft about an axis thereof; rotor blades in

multiple stages disposed on an outer circumference surface of the shaft; and a cylindrical

outer housing that is disposed outside the rotor blades in multiple stages and has an inlet port

and an outlet port. A seal mechanism is provided in a gap between an outer circumference

10 surface of the inner housing and an inner circumference surface of the shaft to inhibit an

inflow of gas into the gap.

Figure 1