

ABSTRACT

The present disclosure provides an edge gas inlet apparatus, a semiconductor process chamber, and semiconductor process equipment. The apparatus includes a rotary gas inlet assembly being annular and rotatable about an axis of the rotary gas inlet assembly; and a fixed gas inlet assembly being annular and arranged outside the rotary gas inlet assembly. A first mating surface located at an outer periphery of the rotary gas inlet assembly and a second mating surface located at an inner periphery of the fixed gas inlet assembly are rotatably mated with each other. A first gas inlet passage is provided in the rotary gas inlet assembly, the first gas inlet passage is provided with a first gas inlet port at the first mating surface and is provided with a plurality of first gas outlet ports along the inner periphery of the rotary gas inlet assembly; and a second gas inlet passage is provided in the fixed gas inlet assembly, the second gas inlet passage is provided with a second gas outlet port at the second mating surface, and the first gas inlet port is in communication with the second gas outlet port. This solution can improve the uniformity of the distribution of gas introduced into the semiconductor process chamber, thereby improving process uniformity.