Claims

[Claim 1]

An application apparatus (1) for applying a protective tape (PT) to a semiconductor wafer (W), comprising:

an application table (60) configured to support the semiconductor wafer (W);

a tape holding body (30) capable of holding the protective tape (PT) on which a protective layer (PL) having an outer diameter smaller than an outer diameter of the semiconductor wafer (W) is laminated and configured to supply the protective tape (PT) held by the tape holding body (30) onto the semiconductor wafer (W); and

a pressing member (62) configured to press from above the protective tape (PT), the protective tape (PT) being supplied onto the semiconductor wafer (W),

the pressing member (62) including a protective layer outer periphery retainer (620) having a ring shape and having an outer diameter larger than the outer diameter of the protective layer (PL) of the protective tape (PT),

the pressing member (62) being configured to apply the protective tape (PT) to the semiconductor wafer (W) by pressing only a peripheral portion of the protective layer (PL) toward the semiconductor wafer (W) by the protective layer outer periphery retainer (620).

[Claim 2]

An application apparatus (1) for applying a protective tape (PT) according to claim 1,

wherein the application table (60) is arranged in a lower chamber (6B) so as to be raised and lowered, and

wherein the pressing member (62) is arranged in an upper chamber (6A) forming a vacuum chamber (6) together with the lower chamber (6B) so as to reciprocate in an up-and-down direction.

[Claim 3]

An application apparatus (1) for applying a protective tape (PT) according to claim 2,

wherein a frame base (61) configured to support a dicing frame (DF) on which the semiconductor wafer (W) is mounted is arranged on a periphery of the application table

(60) in the lower chamber (6B),

wherein the protective tape (PT) is supplied onto the dicing frame (DF), and

wherein the pressing member (62) further includes a tape outer periphery retainer (621) configured to press an outer peripheral edge portion of the protective tape (PT) to apply the protective tape (PT) to the dicing frame (DF).

[Claim 4]

An application apparatus (1) for applying a protective tape (PT) according to claim 3, wherein the pressing member (62) further includes an elastic member (622) configured to support the tape outer periphery retainer (621) so that the tape outer periphery retainer (621) is displaced in the up-and-down direction.

[Claim 5]

An application apparatus (1) for applying a protective tape (PT) according to claim 3 or 4, further comprising a heating table (12) configured to heat the semiconductor wafer (W) having the dicing frame (DF) mounted thereon.

[Claim 6]

An application method of applying a protective tape (PT) to a semiconductor wafer (W), comprising:

a supply step of supplying the protective tape (PT) on which a protective layer (PL) having an outer diameter smaller than an outer diameter of the semiconductor wafer (W) is laminated, onto the semiconductor wafer (W); and

an application step for applying the protective tape (PT) to the semiconductor wafer (W),

the application of the protective tape (PT) to the semiconductor wafer (W) in the application step is conducted by pressing only a peripheral portion of the protective layer (PL) toward the semiconductor wafer (W).

[Claim 7]

The method according to claim 6,

wherein the supply step includes supplying the protective tape (PT) onto a dicing frame (DF) that is arranged so as to surround the semiconductor wafer (W) and on which the semiconductor wafer (W) is mounted, and

wherein the application step includes further pressing an outer peripheral edge portion of the protective tape (PT) to apply the protective tape (PT) to the dicing frame (DF).

[Claim 8]

The method according to claim 7, further comprising a heating step of heating the semiconductor wafer (W) having the dicing frame (DF) mounted thereon.