CLAIMS:

1. A slit nozzle for dispensing liquid onto a surface of a wafer, comprising:

a nozzle body including a discharge opening whose length is in a range from 10-100 mm and whose width is in a range from 0.5-5 mm;

a dispensing chamber positioned upstream of the discharge opening and extending to the discharge opening; and

a liquid distribution chamber positioned upstream of the dispensing chamber,

wherein the dispensing chamber and the liquid distribution chamber are in fluid communication with one another and are separated by a reduction section of the nozzle body whose cross-sectional area is at least 20% less than a cross-sectional area of each of the discharge opening and the liquid distribution chamber.

2. The slit nozzle according to claim 1, wherein the dispensing chamber has a cross-sectional shape corresponding to a shape of the discharge opening, and a cross-sectional area that differs from the cross-sectional area of the discharge opening nozzle by less than 10%.

3. The slit nozzle according to claim 1, wherein the liquid distribution chamber has a cross-sectional shape corresponding to a shape of the discharge opening, and a

cross-sectional area that differs from the cross-sectional area of the discharge opening nozzle by less than 10%.

4. The slit nozzle according to claim 1, wherein the cross-sectional area of the reduction section is at least 50% less than a cross-sectional area of each of the discharge opening, the dispensing chamber and the liquid distribution chamber.

5. The slit nozzle according to claim 1, wherein the cross-sectional area of the reduction section is at least 70% less than a cross-sectional area of each of the discharge opening, the dispensing chamber and the liquid distribution chamber.

6. The slit nozzle according to claim 1, wherein a length of the discharge opening is from 20-50 mm.

7. The slit nozzle according to claim 1, wherein the nozzle body comprises at least one first suction opening in the liquid distribution chamber.

8. The slit nozzle according to claim 7, wherein the at least one first suction opening is elongated in a direction lengthwise of the liquid distribution chamber and parallel to the reduction section.

9. The slit nozzle according to claim 7, further comprising at least one second suction opening in the dispensing chamber.

10. The slit nozzle according to claim 9, wherein the at least one second suction opening is elongated in a direction lengthwise of the discharge opening and parallel to the discharge opening.

11. The slit nozzle according to claim 9, further comprising at least two second suction openings, one arranged on each side of the dispensing chamber.

12. The slit nozzle according to claim 7, further comprising at least one second suction opening in the dispensing chamber at a distance from the discharge opening of not more than 10mm.

13. The slit nozzle according to claim 1, wherein the nozzle body comprises at least one first suction opening in the liquid distribution chamber, at a distance of not more than 5 mm from the reduction section.

14. The slit nozzle according to claim 1, wherein a width of the reduction section is less than a width of the dispensing chamber and a length of the reduction section

differs from a length of the dispensing chamber by less than 30%.

15. The slit nozzle according to claim 1, wherein the liquid distribution chamber comprises a liquid inlet configured to connect to a liquid supply pipe so as to form an angle relative to the nozzle body in a range from 45-90°.

16. The slit nozzle according to claim 1, wherein the liquid distribution chamber is tapered in an upper portion thereof.

17. The slit nozzle according to claim 1, wherein the nozzle body has a vertical extent h1 from a narrowest area of the reduction section to the discharge opening in a range from 10-100 mm.

18. The slit nozzle according to claim 1, wherein the dispensing chamber comprises a transition region where a width of the dispensing chamber gradually increases from a width of the reduction section to a width of the discharge opening.

19. The slit nozzle according to claim 1, wherein the reduction section has a vertical extent h2 in a range from 0-100mm.

20. The slit nozzle according to claim 1, wherein the liquid distribution chamber has a vertical extent h3 from the reduction section to an upper end of the liquid distribution chamber that is greater than or equal to a width of the liquid distribution chamber.