WHAT IS CLAIMED IS:

1. A probe head for testing electronic components on a wafer, the probe head comprising:

a plurality of test sites, each configured to test a different one of the electronic components;

a plurality of groups of contact elements, each associated with a different test site of the plurality of test sites and configured to contact a respective electronic component to be tested in the different test site; and

a plurality of gas supply channels, each passing through a respective test site of the plurality of test sites and configured to supply pressurized gas to a respective group of contact elements associated with the respective test site.

2. The probe head of Claim 1, wherein each gas supply channel of the plurality of gas supply channels comprises a mechanical adjustment configured to adjust a flow resistance of gas within the gas supply channel.

3. The probe head of Claim 2, wherein the mechanical adjustment of each gas supply channel individually adjusts the flow resistance of the gas.

4. The probe head of Claim 1, further comprising:

a plurality of electronically controlled throttle valves, each configured to control a flow resistance of gas of a respective gas supply channel of the plurality of gas supply channels.

5. The probe head of Claim 4, wherein the electronically controlled throttle valves are configured to close off the gas to each respective gas supply channel of the plurality of gas supply channels.

6. The probe head of Claim 1, further comprising:

a gas supply configured to provide pressurized gas to each of the plurality of gas supply channels.

7. The probe head of Claim 1, wherein the pressurized gas is set to a pressure value preventing arcing between two or more contact elements within each of group of contact elements of the plurality of groups of contact elements, between neighbouring test sites of the

plurality of test sites, or between neighbouring devices under tests (DUTs), according to Paschen's Law.

8. The probe head of Claim 1, wherein the pressurized gas comprises pressurized air.

9. The probe head of Claim 1, wherein the plurality of test sites are configured to test every other ones of, or less than every other ones of, electronic component in a direction of a main plane of the wafer.

10. The probe head of Claim 9, further comprising one or more test gaps positioned between two of the plurality of test sites and above one or more electronic components on the wafer not tested by one of the plurality of test sites.

11. The probe head of Claim 1, further comprising:

a bottom surface comprising a main portion and a plurality of elevated portions,

wherein each one of the elevated portions surrounds a different one of the plurality of groups of contact element, and

wherein the elevated portions protrude further from the bottom surface relative to the main portion.

12. The probe head of Claim 1, further comprising:

a board comprising a plurality of through holes and a gas distribution unit, each one of the plurality of through holes being arrange between the gas distribution unit,

wherein the gas distribution unit separates a gas supply into different gas supply branches, each entering a different one of the plurality of through holes, and

wherein the gas distribution unit feeds the plurality of gas supply channels with the pressurized gas, respectively.

13. A semiconductor test equipment for wafer-level testing of electronic components, the semiconductor test equipment comprising:

a probe head comprising a plurality of test sites configured to simultaneously contact a plurality of electronic components formed on a semiconductor wafer;

a plurality of groups of contact elements, each group associated with a different test site of the test sites and configured to contact a respective electronic component to be tested; and

a gas distribution unit configured to independently control flow rates of a gas to the different test sites during testing using independent gas supply channels.

14. The semiconductor test equipment of Claim 13, wherein each gas supply channel comprises a mechanical adjustment configured to adjust a flow resistance of gas within the gas supply channel.

15. The semiconductor test equipment of Claim 14, wherein the mechanical adjustment comprises a throttle valve.

16. The semiconductor test equipment of Claim 14, further comprising a controller configured to individually adjust different ones of the mechanical adjustments.

17. The semiconductor test equipment of Claim 13, further comprising a gas supply configured to provide pressurized gas to the gas distribution unit.

18. The semiconductor test equipment of Claim 17, wherein the pressurized gas comprises pressurized air.

19. The semiconductor test equipment of Claim 13, wherein the plurality of test sites are configured to contact every other ones of, or less than every other ones of, the electronic components in a direction of a main plane of the semiconductor wafer.

20. The semiconductor test equipment of Claim 13, wherein the probe head further comprises one or more test gaps positioned between two of the plurality of test sites and above one or more electronic components formed on the wafer not contacted by one of the plurality of test sites.

21. The semiconductor test equipment of Claim 13, wherein the probe head further comprises:

a bottom surface comprising a main portion and a plurality of elevated portions,

wherein each one of the elevated portions surrounds a different one of the plurality of groups of contact element, and

wherein the elevated portions protrude further from the bottom surface relative to the main portion.