What is Claimed:

1. A support system for a semiconductor device during a wire or ribbon bonding operation, the support system comprising:

a body portion defining an upper surface, the upper surface including an upper surface contact region configured to support at least a portion of a lower surface of a semiconductor device at a lower surface contact region during a wire or ribbon bonding operation; and

a plurality of protrusions on the upper surface contact region, the plurality of protrusions including abrasive particles attached to the upper surface contact region.

2. The support system of claim 1 wherein the plurality of protrusions are configured to deform the lower surface contact region during the wire or ribbon bonding operation.

3. The support system of claim 1 wherein the plurality of protrusions are configured to at least partially embed into the lower surface contact region during a clamping operation before the wire or ribbon bonding operation.

4. The support system of claim 1 wherein the ~~plurality of protrusions~~abrasive particles comprise diamond particles.

5. The support system of claim 1 further comprising a coating on the upper surface contact region, the abrasive particles being embedded in the coating~~wherein the plurality of protrusions include a series of surface structures~~.

6. The support system of claim 5 wherein the coating is a nickel coating~~series of surface structures comprise a series of pyramidal structures~~.

7. The support system of claim 5 wherein the abrasive particles comprise diamond particles~~series of surface structures comprise a series of pointed structures~~.

8. The support system of claim ~~1~~ 5 wherein the coating is a nickel coating, and the abrasive particles comprise diamond particles~~plurality of protrusions include at least one of:~~

~~abrasive particles,~~

~~a series of machined structures,~~

~~a series of electrical discharge machined (EDM) structures,~~

~~a series of structures formed by laser ablation,~~

~~a series of pyramidal structures, and~~

~~a series of pointed structures~~.

9. The support system of claim 1 wherein the semiconductor device includes a leadframe, the leadframe defining the lower surface.

10. A support system for a semiconductor device during a wire or ribbon bonding operation, the support system comprising:

a lower body portion defining an upper surface, the upper surface being configured to support at least a portion of a bottom surface of a semiconductor device during a wire or ribbon bonding operation;

an upper body portion defining a lower surface, the lower surface being configured to contact at least a portion of a top surface of the semiconductor device at a contact region of the semiconductor device during the wire or ribbon bonding operation; and

a plurality of protrusions on the lower surface, the plurality of protrusions including abrasive particles attached to the lower surface.

11. The support system of claim 10 wherein the plurality of protrusions being configured to deform the top surface during the wire or ribbon bonding operation.

12. The support system of claim 10 wherein the plurality of protrusions are configured to at least partially embed into the top surface during a clamping operation before the wire or ribbon bonding operation.

13. The support system of claim 10 wherein the ~~plurality of protrusions~~abrasive particles comprise diamond particles.

14. The support system of claim 10 further comprising a coating on the lower surface, the abrasive particles being embedded in the coating~~wherein the plurality of protrusions are a series of surface structures formed on the lower surface~~.

15. The support system of claim 14 wherein the coating is a nickel coating~~series of surface structures comprise a series of pyramidal structures~~.

16. The support system of claim 14 wherein the abrasive particles comprise diamond particles~~series of surface structures comprise a series of pointed structures~~.

17. The support system of claim 10 wherein the coating is a nickel coating, and the abrasive particles comprise diamond particles~~plurality of protrusions are defined by~~

~~abrasive particles,~~

~~a series of machined structures,~~

~~a series of electrical discharge machined (EDM) structures,~~

~~a series of structures formed by laser ablation,~~

~~a series of pyramidal structures, or~~

~~a series of pointed structures~~.

18. The support system of claim 10 wherein the upper body portion includes a window clamp.

19. The support system of claim 10 wherein the upper body portion includes a series of clamp fingers.

20. The support system of claim 10 further comprising

a second plurality of protrusions on the upper surface, wherein the bottom surface is supported at a second contact region of the semiconductor device during the wire or ribbon bonding operation, the second plurality of protrusions being configured to deform the bottom surface during the wire or ribbon bonding operation.

21. The support system of claim 20 wherein the semiconductor device includes a leadframe, the leadframe defining the top surface and the bottom surface.

22. The support system of claim 10 wherein the semiconductor device includes a leadframe, the leadframe defining the top surface.

23. A method of supporting a semiconductor device during a wire or ribbon bonding operation, the method comprising the steps of:

a) providing a body portion, the body portion defining an upper surface including an upper surface contact region having a plurality of protrusions, the plurality of protrusions including abrasive particles attached to the upper surface contact region, the upper surface contact region configured to support at least a portion of a lower surface of a semiconductor device at a lower surface contact region during a wire or ribbon bonding operation; and

b) supporting at least the portion of the lower surface of the semiconductor device at the lower surface contact region with the upper surface contact region such that the lower surface contact region is deformed by the plurality of protrusions.

24. The method of claim 23 wherein during step b) the plurality of protrusions are configured to at least partially embed into the lower surface contact region during a clamping operation before the wire or ribbon bonding operation.

25. The method of claim 23 wherein the abrasive particles comprise diamond particles.

26. The method of claim 23 further comprising a coating on the upper surface contact region, the abrasive particles being embedded in the coating~~wherein the plurality of protrusions are a series of surface structures~~.

27. The method of claim 26 wherein the coating is a nickel coating~~series of surface structures is a series of pyramidal structures~~.

28. The method of claim 26 wherein the abrasive particles comprise diamond particles~~series of surface structures is a series of pointed structures~~.

29. The method of claim 23 wherein the coating is a nickel coating, and the abrasive particles comprise diamond particles~~plurality of protrusions include at least one of:~~

~~abrasive particles,~~

~~a series of machined structures,~~

~~a series of structures formed by electrical discharge machining (EDM),~~

~~a series of structures formed by laser ablation,~~

~~a series of pyramidal structures, or~~

~~a series of pointed structures~~.

30. The method of claim 23 wherein the semiconductor device includes a leadframe, the leadframe defining the lower surface.

31. A method for supporting a semiconductor device during a wire or ribbon bonding operation, the method comprising the steps of:

a) providing a lower body portion, the lower body portion defining an upper surface being configured to support at least a portion of a bottom surface of a semiconductor device during a wire or ribbon bonding operation;

b) providing an upper body portion, the upper body portion defining a lower surface being configured to contact at least a portion of a top surface of the semiconductor device at a contact region during the wire or ribbon bonding operation, the lower surface including a plurality of protrusions, the plurality of protrusions including abrasive particles attached to the lower surface; and

c) deforming the top surface with the plurality of protrusions during the wire or ribbon bonding operation.

32. The method of claim 31 wherein the plurality of protrusions is configured to at least partially embed into the top surface during a clamping operation before the wire or ribbon bonding operation.

33. The method of claim 31 wherein the ~~plurality of protrusions~~abrasive particles comprise diamond particles.

34. The method of claim 31 further comprising a coating on the lower surface, the abrasive particles being embedded in the coating~~wherein the plurality of protrusions are a series of surface structures formed on the lower surface~~.

35. The method of claim 34 wherein the coating is a nickel coating~~series of surface structures comprise a series of pyramidal structures~~.

36. The method of claim 34 wherein the abrasive particles comprise diamond particles~~series of surface structures comprise a series of pointed structures~~.

37. The method of claim 31 wherein the coating is a nickel coating, and the abrasive particles comprise diamond particles~~plurality of protrusions include at least one of:~~

~~abrasive particles,~~

~~a series of machined structures,~~

~~a series of structures formed by electrical discharge machining (EDM),~~

~~a series of structures formed by laser ablation,~~

~~a series of pyramidal structures, or~~

~~a series of pointed structures~~.

38. The method of claim 31 wherein the upper body portion includes a window clamp.

39. The method of claim 31 wherein the upper body portion includes a series of clamp fingers.

40. The method of claim 31 wherein the upper surface includes a second plurality of protrusions, the upper surface being configured to contact at least a portion of the bottom surface of the semiconductor device at a second contact region during the wire or ribbon bonding operation, the second plurality of protrusions being configured to deform the bottom surface at the second contact region during the wire or ribbon bonding operation.