

17. An apparatus according to clause 1, wherein the paddles (16) of the impeller (10) are adapted to deform to conform to the shape of the food product.

18. An apparatus according to clause 1, wherein the knife assemblies comprise surfaces that face the impeller (10) and have corrugated shapes corresponding to the corrugated shape of the knife (14).

19. An apparatus according to clause 18, wherein the corrugated shapes of the surfaces of the knife assemblies are shaped differently than the corrugated shapes of the knives (14) to minimize surface contact between the unsliced food product and the cutting head (12).

20. An apparatus according to clause 18, wherein the knife assemblies comprise means (52) for accurately aligning the corrugated shapes of the surfaces of the knife assemblies with the corrugated shape of the knife (14).

21. An apparatus according to clause 1, wherein the knife assemblies have fingers (50) that engage valleys defined by the corrugated shape of the knife (14).

22. An apparatus according to clause 21, wherein the fingers (50) of the knife assemblies are beveled on a side of the knife assemblies facing the impeller (10).

23. An apparatus according to clause 1, wherein the knife assemblies comprise a shoe (22), a knife holder (27) mounted to the shoe (22) and a clamp (26) securing the knife (14) to the knife holder (27).

24. An apparatus according to clause 1, wherein the knife assemblies comprise a quick clamping device (26) for securing the knife (14).

25. An apparatus for cutting food product comprising:

a cylindrical-shaped cutting head (112) mounted for rotation about a horizontally disposed central axis of rotation, the cutting head (112) comprising a circular-shaped front opening and a circumferential wall defined in part by at least one knife assembly comprising an axially extending knife (114) and means for securing the knife (114) to the cutting head (112), each knife (114) having a corrugated shape to produce a food product slice with generally parallel cuts, wherein the food product slice has a periodic shape and a large-amplitude cross-section; means for rotating the cutting head (112) about the central axis of rotation; and

a stationary hollow elongate feed chute (140) disposed through the front opening and including an inlet opening and an outlet opening (138) for containing and consecutively feeding a supply of food products to the knife (114); wherein the longitudinal axis of the feed chute (140) intersects the circumferential wall of the cutting head (112) approximately midway between the opposite ends of the wall and spaced

rearwardly of the axis of rotation with respect to the direction of cutting head (112) rotation to dispose the outlet opening (138) of the feed chute (140) adjacent the lower circumferential wall portion of the cutting head (112) so that each food product is caused to engage the lower circumferential wall portion of the cutting head (112) for slicing by the knife (114) during rotation of the cutting head (112).

26. An apparatus according to clause 25, wherein the large-amplitude cross-section of the food product slice has an amplitude of about 2.5 to 9 millimeters.

27. An apparatus according to clause 25, wherein the large-amplitude cross-section of the food product slice has an amplitude of about 3 to 7 millimeters.

28. An apparatus according to clause 25, wherein the large-amplitude cross-section of the food product slice has an amplitude of about 3.8 to 5.7 millimeters.

29. An apparatus according to clause 25, wherein a leading edge of each knife (114) corresponds to a trailing end of an adjacent knife assembly to define a sufficiently low rake-off angle to reduce through-slice cracking of the food product.

30. An apparatus according to clause 29, wherein the rake-off angle for the knife (114) is less than 23 degrees.

31. An apparatus according to clause 29, wherein the rake-off angle for the knife (114) is less than 20 degrees.

32. An apparatus according to clause 29, wherein the rake-off angle for the knife (114) is about 17 degrees.

33. An apparatus according to clause 25, wherein each knife (114) has a biased bevel comprising a bevel (54) that faces away from the central axis of rotation.

34. An apparatus according to clause 33, wherein the bevel (54) of the biased bevel has a grind angle of about 7° to 11°.

35. An apparatus according to clause 25, wherein the knife assemblies comprise surfaces that face the central axis of rotation and have corrugated shapes corresponding to the corrugated shape of the knife (114).

36. An apparatus according to clause 35, wherein the corrugated shape of the surfaces of the knife assembly are shaped differently than the corrugated shapes of the knives (114) to minimize surface contact between the unsliced food product and the cutting head (112).

37. An apparatus according to clause 35, wherein the knife assemblies comprise means (52) for aligning the corrugated shapes of the surfaces of the knife assemblies with the corrugated shape of the knife (114).

38. An apparatus according to clause 25, wherein the knife assemblies comprise fingers (50) that en-