Peeling Machine for Fruit and Vegetable

Technical Field

The present application relates to the technical field of food processing machinery, in particular to a peeling machine for fruit and vegetable.

Background

At present, most peeling machines can only peel large fruits and vegetables, through which a single fruit or vegetable is fixed on a rotating shaft, the fruit or vegetable is rotated at high speed, and a fruit knife approaches a skin of the fruit or vegetable for peeling. However, small fruits and vegetables, such as grapes and American grapes, generally can only be peeled by hand, which is very inconvenient and unsanitary. In the related art, in a peeling process by using a peeling machine, fruits and vegetables will form fruit and vegetable juice, and it is inconvenient to recycle the fruit and vegetable juice.

Summary

Embodiments of the present application provide a peeling machine for fruit and vegetable.

A peeling machine for fruit and vegetable includes:

a cutting disk, including a base disk and a blade, wherein the base disk is provided with a through hole, and the blade is disposed on the base disk and connected at an edge of the through hole;

a material receiving cavity, including a bottom wall and a side wall connected to the bottom wall, wherein the bottom wall and the side wall form a material receiving chamber, the bottom wall is located below the base disk, the bottom wall is disposed at an interval from the base disk, the bottom wall is provided with a liquid outlet hole which is communicated with the outside of the material receiving cavity.

In the peeling machine for fruit and vegetable according to an embodiment of the present application, the blade is driven to peel the fruits and vegetables by rotation of the base disk; in

addition, the liquid outlet hole on the bottom wall can make the liquid flow to the outside of the material receiving cavity, which is convenient for recycling of fruit and vegetable juice.

In some embodiments, a filter device is installed in the liquid outlet hole, and the filter device has multiple filter holes.

In some embodiments, a filter screen is disposed between the bottom wall and the base disk.

In some embodiments, the cutting disk is housed in the material receiving chamber.

In some embodiments, the peeling machine for fruit and vegetable further includes a material bucket disposed below the liquid outlet hole, and the material bucket is used for receiving the liquid flowing out of the liquid outlet hole.

In some embodiments, the peeling machine for fruit and vegetable further includes an enclosure wall surrounding the edge of the base disk, the enclosure wall and the base disk enclose to form a housing space, the base disk is rotatable with respect to the enclosure wall, the enclosure wall is provided with an opening, the peeling machine for fruit and vegetable further includes a baffle, a first end of the baffle is connected to a first edge of the opening, a second end of the baffle is a free end, a passage space is formed between the second end and the second edge of the opening, the passage space is communicated with the opening, the blade is used for cutting fruits and vegetables when the base disk is rotated along a first direction, and the base disk drives the fruits and vegetables to pass through the passage space to be output to outside of the housing space from the opening when the base disk is rotated along a second direction.

In some embodiments, a discharge tube is disposed outside the enclosure wall, and the discharge tube is interfaced with the opening.

In some embodiments, the base disk includes a disk surface facing upward, a channel for passing through materials is formed between a blade edge of the blade and an edge of the through hole, the blade includes a blade side face facing upward, the blade side face connects a blade edge side with a blade back side of the blade, and the blade side face is parallel to and higher than the disk surface.

In some embodiments, a distance between the blade side face and the disk surface ranges from 0.1 mm to 0.5 mm.

In some embodiments, the peeling machine for fruit and vegetable further includes a motor used for driving the cutting disk to rotate, a rotating speed of the cutting disk is in a range of 600-700 rpm, and a cutting rotation time of the cutting disk is in a range of 18-20 seconds.

Some of additional aspects and advantages of the present application will be set forth in the following description which will become apparent from the following description or will be acknowledged from the practice of the present application.

Brief Description of Drawings

The above and/or additional aspects and advantages of the present application will become apparent and be readily understood from the description of the embodiments taken in conjunction with the following drawings.

FIG. 1 is a schematic diagram of a three-dimensional structure of a peeling machine for fruit and vegetable according to an embodiment of the present application.

FIG. 2 is another schematic diagram of a three-dimensional structure of a peeling machine for fruit and vegetable according to an embodiment of the present application.

FIG. 3 is a schematic sectional view of a three-dimensional structure of a peeling machine for fruit and vegetable according to an embodiment of the present application.

FIG. 4 is a schematic diagram of a three-dimensional structure of a cutting disk of a peeling machine for fruit and vegetable according to an embodiment of the present application.

FIG. 5 is a partial schematic sectional view of a cutting disk of a peeling machine for fruit and vegetable according to an embodiment of the present application.

FIG. 6 is a schematic side view of a blade of a cutting disk according to an embodiment of the present application.

Illustration for symbols of main elements:

100 peeling machine for fruit and vegetable, 10 cutting disk, 11 base disk, 111 through hole, 112 disk surface, 113 channel, 114 mounting groove, 12 blade, 121 blade side face, 122 blade edge face, 20 material receiving cavity, 21 bottom wall, 211 liquid outlet hole, 22 side wall, 30 filter device, 23 filter screen, 40 material bucket, 13 enclosure wall, 131 opening, 14 baffle, 141 passage space, 15 housing space, 50 discharge tube, 60 motor, 70 cooling fan.

Detailed Description

Embodiments of the present application are described in detail below and examples of the embodiments are shown in the drawings, and identical or similar reference numerals always denote identical or similar elements or elements with identical or similar functions. The embodiments described below by referencing the accompanying drawings are exemplary and are intended for explanation only, rather than being construed as limitation on the present application.

In the description of the present application, it should be understood that, an orientation or positional relationship indicated by the terms “center”, “longitudinal”, “lateral/transversal”, “length”, “width”, “thickness”, “up”, “down”, “front”, “rear”, “left”, “right”, “vertical”, “horizontal”, “top”, “bottom”, “inside”, “outside”, “clockwise”, “counterclockwise” and the like is based on the orientation or positional relationship illustrated by the drawings, which is intended for ease of description and simplification of the description only, rather than indicating or implying that the devices or elements indicated must have a specific orientation, or be constructed and operated in a specific orientation, and therefore cannot be construed as limitation on the present application. Furthermore, the terms “first” and “second” are used for descriptive purposes only and cannot be understood as indicating or implying relative importance or implying the quantity of technical features indicated. Thus, features defined with “first” or “second” may explicitly or implicitly include one or more of said features. In the description of the present application, “multiple” means two or more, unless otherwise expressly and specifically defined.

In the description of the present application, it should be noted that, unless otherwise expressly specified or defined, the terms “mounting”, “connection”, “connecting” should be

understood in a broad sense, for example, they may be fixed connection, detachable connection or integrated connection; they may be mechanical connection, electrical connection or mutual communication; they may be direct connection, indirect connection through an intermediary, an internal communication between two elements or interactive relationship of two elements. For those ordinarily skilled in the art, the specific meanings of the above terms in the present application can be understood according to specific situations.

In the present application, a first feature being located “above” or “below” a second feature may include a direct contact between the first feature and the second feature, or may include that the first feature and the second feature are contacted through additional feature(s) therebetween, rather than being in a direct contact, unless otherwise expressly specified or defined. Also, a first feature being located “above”, “over”, or “on” a second feature includes the first feature being located directly above and obliquely above the second feature, or simply indicates that the horizontal height of the first feature is greater than that of the second feature. The first feature being located “below”, “under” and “underneath” the second feature includes the first feature being located directly below and obliquely below the second feature, or simply indicates that the horizontal height of the first feature is less than that of the second feature.

The following disclosure provides many different implementations or examples for implementing different structures of the present application. In order to simplify the disclosure of the present application, components and arrangements of specific examples are described below. Obviously, they are only examples and are not intended to limit the present application. Further, reference numbers and/or reference letters in different examples for the purposes of simplicity and clarity may be repeated in the present application, and such repeat itself does not indicate a relationship among the various embodiments and/or arrangements discussed. In addition, examples of various specific processes and materials are provided in the present application, but those ordinarily skilled in the art may be aware of the application of other processes and/or the use of other materials.

Referring to FIG. 1- FIG. 3, a peeling machine for fruit and vegetable 100 according to an embodiment of the present application includes a cutting disk 10 and a material receiving cavity 20. The cutting disk 10 includes a base disk 11 and a blade 12, the base disk 11 is provided with

a through hole 111 (as shown in FIG. 5), and the blade 12 is disposed on the base disk 11 and connected at an edge of the through hole 111. The material receiving cavity 20 includes a bottom wall 21 and a side wall 22 connected to the bottom wall 21. The bottom wall 21 and the side wall 22 form a material receiving chamber 24. The bottom wall 21 is located below the base disk 11, and the bottom wall 21 is disposed at an interval from the base disk 11. The bottom wall 21 is provided with a liquid outlet hole 211, and the liquid outlet hole 211 is communicated with the outside of the material receiving cavity 20.

In the peeling machine for fruit and vegetable 100 according to the embodiment of the present application, the blade 12 is driven by rotation of the base disk 11 to peel the fruit and vegetable. In addition, the liquid outlet hole 211 on the bottom wall 21 enables liquid to flow to the outside of the material receiving cavity 20, which is convenient for recycling of fruit and vegetable juice.

Specifically, the base disk 11 may be made of a material such as metal or hard plastic, so that the base disk 11 can carry more fruits and vegetables and the blade 12 can be stably mounted on the base disk 11. The base disk 11 may be provided in a circular plate-shaped structure, so that the base disk 11 can be rotated with its center of circle as an axis.

Referring to FIG. 4 and FIG. 5, the base disk 11 is provided with the through hole 111, and the through hole 111 is disposed to penetrate through the base disk 11. The through hole 111 may be provided in a strip-shaped structure, and a shape of the blade 12 may be matched with a shape of the through hole 111. Obviously, the through hole 111 and the blade 12 may also be provided in an arc-shaped structure. The shapes of the through hole 111 and the blade 12 are not limited in the present application.

The blade 12 may be mounted at one side edge of the through hole 111 along a length direction of the through hole 111. A blade face of the blade 12 may be raised upward with respect to the base disk 11, so that a blade edge of the blade 12 is slightly higher than an upper surface of the base disk 11, and the blade 12 can peel fruits and vegetables when they pass the blade 12. A gap may be left between the blade 12 and the other side edge of the through hole 111, so that the base disk 11 can be penetrated along an up-down direction, and then skins of fruits and vegetables removed by the blade 12 can fall down from the gap.

Referring to FIG. 3, in some embodiments, a filter device 30 is mounted in the liquid outlet hole 211, and the filter device 30 has multiple filter holes. In this way, the filter device 30 can filter solid matter, such as removed skins, thereby enabling more pure fruit and vegetable juice to be flowed out. The filter device 30 is detachably mounted in the liquid outlet hole 211 to facilitate cleaning of the filter device 30. It should be noted that the filter device 30 may be partially located in the liquid outlet hole 211 or may be completely located in the liquid outlet hole 211.

Referring to FIG. 3, in some embodiments, a filter screen 23 is disposed between the bottom wall 21 and the base disk 11. In this way, the filter screen 23 can carry solids such as skins of fruits and vegetables that have been cut off, and allow fruit and vegetable juice to flow to the bottom wall 21, and then flow from the liquid outlet hole 211 to the outside of the material receiving cavity 20. It may be understood that multiple apertures are formed on the filter screen 23.

In some embodiments, the cutting disk 10 is housed in the material receiving chamber 24. In this way, when the cutting disk 10 is rotated to perform the cutting operation, the fruits and vegetables are blocked by the material receiving chamber 24 and do not splash out of the peeling machine for fruit and vegetable 100.

Referring to FIG. 2 and FIG. 3, in some embodiments, the peeling machine for fruit and vegetable 100 further includes a material bucket 40 disposed below the liquid outlet hole 211, and the material bucket 40 is used for receiving the liquid flowing out of the liquid outlet hole 211. In this way, the material bucket 40 can collect fruit and vegetable juice, thereby avoiding wasting the fruit and vegetable juice formed during peeling and improving a utilization rate of fruits and vegetables.

Specifically, the material bucket 40 may be moved below the liquid outlet hole 211, thereby facilitating the fetching for the fruit and vegetable juice. The material bucket 40 may be a regular shaped bucket, such as a square bucket, a circular bucket, or an irregular shaped bucket.

Referring to FIG. 1 and FIG. 2, in some embodiments, the peeling machine for fruit and vegetable 100 further includes an enclosure wall 13, and the enclosure wall 13 surrounds an

edge of the base disk 11. The enclosure wall 13 and the base disk 11 form a housing space 15, the base disk 11 is rotatable with respect to the enclosure wall 13. The enclosure wall 13 is provided with an opening 131. The peeling machine for fruit and vegetable 100 further includes a baffle 14, a first end of the baffle 14 is connected to a first edge of the opening 131, a second end of the baffle 14 is a free end, and a passage space 141 is formed between the second end of the baffle 14 and a second edge of the opening 131, and the passage space 141 is communicated with the opening 131. The blade 12 is used for cutting fruits and vegetables when the base disk 11 is rotated along a first direction, and the base disk 11 drives fruits and vegetables to pass through the passage space 141 to be output to the outside of the housing space 15 from the opening 131 when the base disk 11 is rotated along a second direction.

In this way, multiple fruits and vegetables may be placed in the housing space 15 formed by the base disk 11 and the enclosure wall 13, and the blade 12 is driven to peel the fruits and vegetables by the rotation of the base disk 11. When the base disk 11 is rotated along the first direction, the baffle 14 can prevent the fruits and vegetables from being thrown out of the opening 131, and at the same time there is a difference between rotating speeds of the fruits and vegetables and the base disk 11, so that the blade 12 can peel the skins to achieve a peeling effect. When the base disk 11 is rotated along the second direction after the peeling is completed, the baffle 14 can block the peeled fruits and vegetables so that the peeled fruits and vegetables can be led out of the opening 131, thereby facilitating the collection of the peeled fruits and vegetables.

The enclosure wall 13 may be provided in a hollow cylindrical structure with an opening at upper side, an inner surface of the enclosure wall 13 surrounds an outer edge of the base disk 11, and the base disk 11 may rotate within the enclosure wall 13 with its center of circle as an axis. The housing space 15 formed by the base disk 11 and the enclosure wall 13 can be used for housing fruits and vegetables, so that the fruits and vegetables in the housing space 15 can be peeled when the base disk 11 is rotating.

An opening 131 may be formed in the enclosure wall 13, and the opening 131 is configured to penetrate through the enclosure wall 13, and the peeled fruits and vegetables may flow out of the housing space 15 from the opening 131. A shape of the opening 131 may be

rectangular, triangular, or other combined shape, and the shape of the opening 131 is not limited in the present application. Illustration is made by taking an example that the shape of the opening 131 is a rectangular in the present application.

The baffle 14 may have a flat plate-shaped structure and may be disposed inside the enclosure wall 13. The opening 131 has a first edge and a second edge disposed opposite each other. The first end of the baffle 14 may be fixed at the first edge, and the second end of the baffle 14 extends towards the second edge and towards the inside of the housing space 15, so that there is a spacing between the second end and the second edge, that is, through the space 141, the peeled fruits and vegetables can flow out of the housing space 15 from the opening 131 under the blockage of the baffle 14.

The first direction may be a circumferential direction from the first end to the second end of the baffle 14, and correspondingly, the second direction may be opposite to the first direction. For example, the first direction may be counterclockwise, and the second direction is clockwise.

It may be understood that when the base disk 11 is rotated along the first direction around its center of circle within the enclosure wall 13, the fruits and vegetables in the housing space 15 are rotated with the base disk 11. However, because the fruits and vegetables have certain gravity and there is a friction between the enclosure wall 13 and the fruits and vegetables, the rotating speed of the fruits and vegetables is less than that of the base disk 11, and the blade 12 can peel the fruits and vegetables to achieve the peeling effect. When the base disk 11 is rotated along the first direction, since the fruits and vegetables have centrifugal force in a direction towards the enclosure wall 13 during rotation, the baffle 14 can block the opening and is bent and extended toward the inside of the housing space 15, so that the fruits and vegetables can be blocked in the housing space 15 by the baffle 14 without flowing out of the opening 131.

When the peeling of the fruits and vegetables in the housing space 15 is completed, the base disk 11 is rotated along the second direction around the center of the base disk 11, so that the fruits and vegetables come into contact with a blade back of the blade 12, and pulps will not be damaged. Since the fruits and vegetables have centrifugal force during rotation, the fruits and vegetables will approach the enclosure wall 13, and the baffle 14 can block the fruits and vegetables, so that the fruits and vegetables can be led out of the opening 131 through the

passage space 141. A container for containing pulps may be placed in advance outside the opening 131 to collect peeled fruits and vegetables.

It is understood that the base disk 11 can be detached from the enclosure wall 13 to facilitate cleaning of the base disk 11 and the blade 12 on the base disk 11, and also facilitate cleaning of skins in the material receiving cavity 20 to facilitate the next peeling process.

Referring to FIG. 2- FIG. 3, in some embodiments, a discharge tube 50 is disposed outside the enclosure wall 13, and the discharge tube 50 is interfaced with the opening 131. Thus, the discharge tube 50 can lead the peeled fruits and vegetables directly into the outer container, and the fruits and vegetables will not flow down along an outer wall of the peeling machine for fruit and vegetable 100, thus avoiding contamination to pulps.

Specifically, the discharge tube 50 may be disposed outside the enclosure wall 13 and extend in a direction away from the enclosure wall 13 along a peripheral edge of the opening 131. The discharge tube 50 may be inclined slightly downward, so that the fruits and vegetables that are led out of the opening 131 may be more easily led into the outer container.

Referring to FIG. 3, in some embodiments, the peeling machine for fruit and vegetable 100 further includes a motor 60, the motor 60 is mounted below the cutting disk 10, and the motor 60 is used for driving the cutting disk 10 to rotate.

Specifically, the motor 60 may be a speed control motor 60, so that the speed can be adjusted depending on different fruits, so as to avoid removing too much fruit pulp caused by an excessively high rotating speed or failing to remove the skin completely due to an excessively slow rotating speed.

The motor 60 may be disposed below the bottom wall 21 of the material receiving cavity 20, and a rotating shaft hole may be provided at a center portion of the bottom wall 21, through which an output shaft of the motor 60 extends into the material receiving cavity 20. The motor 60 can drive the base disk 11 to rotate by a connection mechanism 80. The connection mechanism 80 is disposed in the material receiving cavity 20, one end of the connection mechanism 80 is connected to the output shaft, and the other end of the connection mechanism 80 is connected at the center position of the base disk 11. The connection mechanism 80 can support the base disk 11, so that the base disk 11 and the bottom wall 21 are spaced oppositely

to form the material receiving cavity 20, thus facilitating the collection of skins. The motor 60 can drive the connection mechanism 80 to rotate, and the connection mechanism 80 can drive the base disk 11 to rotate, so that the blade 12 on the base disk 11 can peel fruits and vegetables within the housing space 15.

In some embodiments, the rotating speed of the cutting disk 10 is in a range of 600-700 rpm and the cutting rotation time of the cutting disk 10 is in a range of 18-20 seconds.

In this way, a cutting efficiency of the cutting disk 10 is relatively high, so that a percentage of pulps gained after the peeling by the peeling machine for fruit and vegetable 100 is relatively high.

As shown in Table 1 below, Table 1 illustrates test results of combinations of the rotating speed and the cutting rotation time of the cutting disk 10, while taking green grapes being cut as an example.

Table 1:

No.	Cutting speed (RPM)	Time (s)	Percentage of pulps gained after the peeling (%)	Peeling effect
1	600	18	80.16%	90%
2	650	18	77.30%	almost 100%
3	700	18	73.41%	almost 100%
4	650	20	73.10%	100%
5	650	19	75.40%	100%
6	620	20	77.38%	100%
7	630	20	82.54%	100%
8	630	20	85.56%	100%

As can be seen from the Table 1 above, when the rotating speed of the cutting disk 10 is in a range of 600-700 rpm and the cutting rotation time of the cutting disk 10 is in a range of

18-20 seconds, all the percentages of pulps gained after the peeling of the green grapes are greater than 70%, and the percentage of pulps gained after the peeling is relatively high.

In one example, the rotating speed of the cutting disk 10 is in a range of 600-700 rpm, and the cutting rotation time of the cutting disk 10 is 18 seconds. In another example, the rotating speed of the cutting disk 10 is in a range of 620-650 rpm, and the cutting rotation time of the cutting disk 10 is 20 seconds. In yet another example, the rotating speed of the cutting disk 10 is 650 rpm and the cutting rotation time of the cutting disk 10 is 19 seconds.

Referring to FIG. 4 and FIG. 5, in some embodiments, the base disk 11 includes a disk surface 112 facing upward, a channel 113 for passing through materials is formed between the blade edge of the blade 12 and an edge of the through hole 111. The blade 12 includes a blade side face 121 facing upward, the blade side face 121 connects a blade edge side and a blade back side of the blade 12, and the blade side face 121 is parallel to and higher than the disk surface 112.

In this way, the blade side face 121 is parallel to and higher than the disk surface 112, so that the blade 12 can effectively cut the fruits and vegetables and prevent the cut slices of the fruits and vegetables from being too thick. It may be understood that if the blade side face 121 is not parallel to the disk surface 112, a cutting angle of the blade 12 will be inclined, and either the cut pulp will be too thick or the skin will not be cut completely.

In some embodiments, a distance H between the blade side face 121 and the disk surface 112 ranges from 0.1 mm to 0.5 mm. For example, the distance H between the blade side face 121 and the disk surface 112 is 0.1 mm, 0.2 mm, 0.3 mm, 0.4 mm, or 0.5 mm. Preferably, the distance H between the blade side face 121 and the disk surface 112 is 0.2 mm.

In this way, a cutting effect of the blade 12 is better, not only the cutting efficiency is high, but also pulps are avoided from being excessively cut off. Specifically, if the distance H between the blade side face 121 and the disk surface 112 is less than 0.1 mm, the cut slices of fruits and vegetables each time are too thin and the cutting needs to be performed several times, leading to a low efficiency. If the distance H between the blade side face 121 and the disk surface 112 is greater than 0.5 mm, the cut slices of fruit and vegetable are too thick and too much pulps are wasted.

Referring to FIG. 5, in some embodiments, the base disk 11 is formed with a mounting groove 114 recessed from the disk surface 112, a through hole 111 passes through the mounting groove 114 and the blade 12 is mounted in the mounting groove 114. In this way, the mounting groove 114 enables the blade 12 to be mounted more stably and prevents the blade 12 from shaking, so that the cutting efficiency of the blade 12 can be improved.

Referring to FIG. 6, in some embodiments, a thickness D of the blade 12 is 0.4 mm-1mm. In this way, the thickness of the blade 12 is moderate, so that not only the manufacturing cost is relatively low, but also the cutting efficiency is relatively high. It may be understood that, if the thickness D of the blade 12 is less than 0.4 mm, the blade 12 is difficult to manufacture, and if the thickness D of the blade 12 is greater than 1mm, the blade 12 is not sufficiently sharp, and it is difficult to totally cut the skins of fruits and vegetables. Preferably, the thickness D of the blade 12 is 0.6 mm. A material of the blade 12 may be a stainless steel, specifically 9Cr18MoV, for example.

In some embodiments, the blade 12 includes a blade edge face 122 connected to the blade side face 121, a blade angle α is formed between the blade edge face 122 and the blade side face 121, and an angle range of the blade angle α is 15 degrees-20.0 degrees. In this way, the blade 12 has a sharper edge, and the efficiency of cutting fruit and vegetable skins is higher. Preferably, the blade angle α is 17.5 degrees.

Referring to FIG. 4, in some embodiments, multiple blades 12 are provided. The multiple blades 12 are disposed at intervals around a center of the base disk 11, and an included angle is formed between a length direction of the blades 12 and a radial direction of the base disk 11.

In this way, the multiple blades 12 can improve an efficiency of peeling the fruits in the housing space 15, so that the peeling process is faster and the peeling effect is better.

Specifically, the quantity of the blades 12 may be two, three, four, etc., and the multiple blades 12 are evenly disposed at intervals around the center of the base disk 11, so that the fruits and vegetables in the housing space 15 can be peeled by the multiple blades 12 after the base disk 11 is rotated by one revolution, thus saving peeling time and achieving a better peeling effect on fruits.

Correspondingly, the quantity of through holes 111 corresponds to the quantity of blades

12 and the multiple through holes 111 are evenly disposed at intervals around the center of the base disk 11. Each blade 12 is mounted correspondingly at an edge of a corresponding through hole 111 and the blade edges of the blades 12 face the same direction.

Referring to FIG. 4, in some embodiments, an included angle is formed between the length direction of the blade 12 and the radial direction of the base disk 11. The blade 12 may be placed from the center of the base disk 11 toward the enclosure wall 13 and an included angle is formed between a placement direction of the blade 12 and the radial direction of the base disk 11, for example, the included angle may be 30 degrees, 45 degrees, etc., thereby enabling the blade 12 to have a better peeling effect on fruits and vegetables, and reducing removal of pulps. The magnitude of the included angle is not limited in the present application. The included angle should not be too large, as a too large included angle will weaken the peeling effect of the peeling machine for fruit and vegetable 100.

Referring to FIG. 3, in some embodiments, the peeling machine for fruit and vegetable 100 further includes a cooling fan 70 disposed at a side of the motor 60, the cooling fan 70 is used for blowing air to the motor 60. In this way, during operation of the motor 60, the cooling fan 70 can effectively reduce heat generated by the motor 60 and prevent the motor 60 from being overheated and damaged.

Specifically, the cooling fan 70 may be disposed in a shell below the material receiving cavity 20 and a position of the cooling fan 70 corresponds to a position of the motor 60. The cooling fan 70 can blow air to the motor 60 to reduce heat, or extract heat generated by the motor 60 in the shell to dissipate heat, so as to prevent the motor 60 from being damaged due to excessive heat caused by long-term operation.

In the description of the present specification, descriptions of the reference terms “one embodiment”, “certain embodiments”, “illustrative embodiment”, “example”, “specific example” or “some examples” and the like mean that specific features, structures, materials, or characteristics described in conjunction with the embodiments or examples are included in at least one embodiment or example of the present application. In this specification, schematic illustration of the above terms does not necessarily refer to the same embodiments or examples. In addition, the specific features, structures, materials or characteristics described may be

combined in any one or more embodiments or examples in a suitable manner.

While embodiments of the present application have been shown and described, it will be understood by those ordinarily skilled in the art that various alternations, modifications, substitutions and variations may be made to these embodiments without departing from the principles and purposes of the present application, and the scope of the present application is defined by claims and the equivalents thereof.

Claims:

1. A peeling machine for fruit and vegetable, comprising:

a cutting disk, comprising a base disk and a blade, wherein the base disk is provided with a through hole, and the blade is disposed on the base disk and connected at an edge of the through hole;

a material receiving cavity, comprising a bottom wall and a side wall connected to the bottom wall, wherein the bottom wall and the side wall form a material receiving chamber, the bottom wall is located below the base disk, the bottom wall is disposed at an interval from the base disk, the bottom wall is provided with a liquid outlet hole which is communicated with outside of the material receiving cavity.

2. The peeling machine for fruit and vegetable according to claim 1, wherein a filter device is provided in the liquid outlet hole and has a plurality of filter holes.

3. The peeling machine for fruit and vegetable according to claim 1, wherein a filter screen is disposed between the bottom wall and the base disk.

4. The peeling machine for fruit and vegetable according to claim 1, wherein the cutting disk is housed in the material receiving chamber.

5. The peeling machine for fruit and vegetable according to claim 1, further comprising a material bucket disposed below the liquid outlet hole, wherein the material bucket is used for receiving liquid flowing out of the liquid outlet hole.

6. The peeling machine for fruit and vegetable according to claim 1, further comprising an enclosure wall surrounding an edge of the base disk, wherein the enclosure wall and the base disk form a housing space, the base disk is rotatable with respect to the enclosure wall, the

enclosure wall is provided with an opening, the peeling machine for fruit and vegetable further comprises a baffle, and a first end of the baffle is connected to a first edge of the opening, a second end of the baffle is a free end, a passage space is formed between the second end of the baffle and the second edge of the opening, the passage space is communicated with the opening, the blade is used for cutting fruits and vegetables when the base disk is rotated along a first direction, and the base disk drives the fruits and vegetables to pass through the passage space to be output to outside of the housing space from the opening when the base disk is rotated along a second direction.

7. The peeling machine for fruit and vegetable according to claim 6, wherein a discharge tube is disposed outside the enclosure wall, and the discharge tube is interfaced with the opening.

8. The peeling machine for fruit and vegetable according to claim 1, wherein the base disk comprises a disk surface facing upward, a channel for passing through materials is formed between a blade edge of the blade and an edge of the through hole, the blade comprises a blade side face facing upward, the blade side face connects a blade edge side with a blade back side of the blade, and the blade side face is parallel to and higher than the disk surface.

9. The peeling machine for fruit and vegetable according to claim 8, wherein a distance between the blade side face and the disk surface ranges from 0.1 mm to 0.5 mm.

10. The peeling machine for fruit and vegetable according to claim 1, further comprising a motor used for driving the cutting disk to rotate, wherein a rotating speed of the cutting disk is in a range of 600-700 rpm, and a cutting rotation time of the cutting disk is in a range of 18-20 seconds.