CLAIMS

[Claim 1]

A filling packaging machine comprising:

a tape attachment device for attaching a sealing tape to one end of one surface of a web-like packaging material such that the sealing tape partly protrudes outside the packaging material in the width direction;

a vertical sealing device for vertically sealing both ends of the web-like packaging material such that they overlap with each other by a predetermined width to form a tubular packaging material and to attach a protruding portion of the sealing tape to an inner surface of the tubular packaging material so that it can cover an inner step of the overlapping portion; and

a lateral sealing device for laterally sealing the tubular packaging material, filled with contents, at an interval corresponding to the length of one container, the lateral sealing device including an ultrasonic horn and an anvil which are openably/closably provided on opposite sides of the tubular packaging material, and have sealing surfaces facing each other and extending in a direction perpendicular to the length direction of the tubular packaging material, and having an absorption portion, formed in the sealing surface of one of the ultrasonic horn and the anvil, for

absorbing steps formed between the overlapping portion and the other portion,

wherein the tape attachment device attaches a predetermined-width portion of the sealing tape to the one end of the one surface of the web-like packaging material in such a manner that a first edge of both edges of the sealing tape, which is to be located on an overlapping portion side of the sealing tape when viewed from the inner step of the overlapping portion, will be disposed at a position displaced from an outer step of the overlapping portion when viewed in the thickness direction of the tubular packaging material~~.~~

~~[Claim 2]~~

~~The filling packaging machine according to claim 1~~,

wherein the tape attachment device attaches a predetermined-width portion of the sealing tape to the one end of the one surface of the web-like packaging material in such a manner that the first edge of the sealing tape will be disposed at a position which is displaced by not less than 0.5 mm from the outer step of the overlapping portion in a direction away from the inner step of the overlapping portion.

[Claim 2~~3~~]

A filling packaging machine comprising:

a tape attachment device for attaching a sealing tape to one end of one surface of a web-like packaging material such that the sealing tape partly protrudes outside the packaging material in the width direction;

a vertical sealing device for vertically sealing both ends of the web-like packaging material such that they overlap with each other by a predetermined width to form a tubular packaging material and to attach a protruding portion of the sealing tape to an inner surface of the tubular packaging material so that it can cover an inner step of the overlapping portion; and

a lateral sealing device for laterally sealing the tubular packaging material, filled with contents, at an interval corresponding to the length of one container, the lateral sealing device including an ultrasonic horn and an anvil which are openably/closably provided on opposite sides of the tubular packaging material, and have sealing surfaces facing each other and extending in a direction perpendicular to the length direction of the tubular packaging material, and having an absorption portion, formed in the sealing surface of one of the ultrasonic horn and the anvil, for absorbing steps formed between the overlapping portion and the other portion,

wherein the tape attachment device attaches a predetermined-width portion of the sealing tape to the one

end of the one surface of the web-like packaging material in such a manner that a first edge of both edges of the sealing tape, which is to be located on an overlapping portion side of the sealing tape when viewed from the inner step of the overlapping portion, will be disposed at a position displaced from an outer step of the overlapping portion when viewed in the thickness direction of the tubular packaging material,

~~The filling packaging machine according to claim 1,~~ wherein the tape attachment device attaches a predetermined-width portion of the sealing tape to the one end of the one surface of the web-like packaging material in such a manner that the first edge of the sealing tape will be disposed at a position which is displaced by 0.5 to 3 mm from the outer step of the overlapping portion in a direction toward the inner step of the overlapping portion.

[Claim 3~~4~~]

The filling packaging machine according to any one of claims 1 or 2~~to 3~~, wherein the sealing tape has a width which is 1 to 10 times the width of the overlapping portion.

[Claim 4~~5~~]

The filling packaging machine according to any one of claims 1 to 3~~4~~, wherein pressing protrusions, one is for pressing the first edge of the sealing tape and a portion of

the tubular packaging material which overlaps the first edge, and the other for pressing a second edge of the sealing tape opposite from the first edge and a portion of the tubular packaging material which overlaps the second edge, are formed at the corresponding positions on the sealing surface of one of the ultrasonic horn and the anvil.

[Claim 5~~6~~]

The filling packaging machine according to claim 4~~5~~, wherein each pressing protrusion has a ridge-like shape extending in the length direction of the sealing surface and having a length of 1 to 5 mm, a thickness of 0.1 to 0.6 mm, and a protruding height of 0.1 to 0.5 mm.

[Claim 6~~7~~]

A manufacturing method for a content filling container, comprising:

a tape attachment step for attaching a sealing tape to one end of one surface of a web-like packaging material such that the sealing tape partly protrudes outside the packaging material in the width direction;

a vertical sealing step for vertically sealing both ends of the web-like packaging material such that they overlap with each other by a predetermined width to form a tubular packaging material and to attach a protruding portion

of the sealing tape to an inner surface of the tubular packaging material so that it can cover an inner step of the overlapping portion; and

a lateral sealing step for laterally sealing the tubular packaging material, filled with contents, at an interval corresponding to the length of one container by using a lateral sealing device including an ultrasonic horn and an anvil which are openably/closably provided on opposite sides of the tubular packaging material, and have sealing surfaces facing each other and extending in a direction perpendicular to the length direction of the tubular packaging material, and having an absorption portion, formed in the sealing surface of one of the ultrasonic horn and the anvil, for absorbing steps formed between the overlapping portion and the other portion,

wherein in the tape attachment step, a predetermined-width portion of the sealing tape is attached to the one end of the one surface of the web-like packaging material in such a manner that the a first edge of both edges of the sealing tape, which is to be located on an overlapping portion side of the sealing tape when viewed from the inner step of the overlapping portion, will be disposed at a position displaced from an outer step of the overlapping portion when viewed in the thickness direction of the tubular packaging material.

~~[Claim 8]~~

~~The manufacturing method for a content filling container according to claim 7~~,

wherein in the tape attachment step, a predetermined-width portion of the sealing tape is attached to the one end of the one surface of the web-like packaging material in such a manner that the first edge of the sealing tape will be disposed at a position which is displaced by not less than 0.5 mm from the outer step of the overlapping portion in a direction away from the inner step of the overlapping portion.

[Claim 9]

A manufacturing method for a content filling container, comprising:

a tape attachment step for attaching a sealing tape to one end of one surface of a web-like packaging material such that the sealing tape partly protrudes outside the packaging material in the width direction;

a vertical sealing step for vertically sealing both ends of the web-like packaging material such that they overlap with each other by a predetermined width to form a tubular packaging material and to attach a protruding portion of the sealing tape to an inner surface of the tubular

packaging material so that it can cover an inner step of the overlapping portion; and

a lateral sealing step for laterally sealing the tubular packaging material, filled with contents, at an interval corresponding to the length of one container by using a lateral sealing device including an ultrasonic horn and an anvil which are openably/closably provided on opposite sides of the tubular packaging material, and have sealing surfaces facing each other and extending in a direction perpendicular to the length direction of the tubular packaging material, and having an absorption portion, formed in the sealing surface of one of the ultrasonic horn and the anvil, for absorbing steps formed between the overlapping portion and the other portion,

wherein in the tape attachment step, a predetermined-width portion of the sealing tape is attached to the one end of the one surface of the web-like packaging material in such a manner that the a first edge of both edges of the sealing tape, which is to be located on an overlapping portion side of the sealing tape when viewed from the inner step of the overlapping portion, will be disposed at a position displaced from an outer step of the overlapping portion when viewed in the thickness direction of the tubular packaging material~~The manufacturing method for a content filling container according to claim 7~~,

wherein in the tape attachment step, a predetermined-width portion of the sealing tape is attached to the one end of the one surface of the web-like packaging material in such a manner that the first edge of the sealing tape will be disposed at a position which is displaced by 0.5 to 3 mm from the outer step of the overlapping portion in a direction toward the inner step of the overlapping portion.

[Claim 8~~10~~]

The manufacturing method for a content filling container according to any one of claims 6 or 7~~ to 9~~, wherein the sealing tape has a width which is 1 to 10 times the width of the overlapping portion.

[Claim 9~~11~~]

The manufacturing method for a content filling container according to any one of claims 6~~7~~ to 8~~10~~, wherein in the lateral sealing step, the first edge of the sealing tape and a portion of the tubular packaging material which overlaps the first edge, and a second edge of the sealing tape opposite from the first edge and a portion of the tubular packaging material which overlaps the second edge, are pressed by pressing protrusions formed at the corresponding positions on the sealing surface of one of the ultrasonic horn and the anvil.

[Claim 10~~2~~]

The manufacturing method for a content filling container according to claim 9~~11~~, wherein each pressing protrusion has a ridge-like shape extending in the length direction of the sealing surface and having a length of 1 to 5 mm, a thickness of 0.1 to 0.6 mm, and a protruding height of 0.1 to 0.5 mm.

[Claim 11~~3~~]

A content filling container manufactured by using the filling packaging machine according to any one of claims 1 to 5~~6~~.

[Claim 12~~4~~]

A content filling container manufactured by the method according to any one of claims 6~~7~~ to 10~~2~~.