Claims

1. A milk bowl for a breast pump, characterized by comprising a bowl body, wherein a milk storage cavity and a three-way valveare disposed in the bowl body, a milk outlet is disposed at a front end of the milk storage cavity, the three-valve is integrally formed with the bowl body and the three-way valve is located in the milk storage cavity; three ports of the three-way valve are a milk pumping port, a milk flowing port and a negative pressure port respectively, and the negative pressure port of the tee joint and the bowl body are integrated,

the bowl body is composed of an upper panel, a lower arc plate and a rear end plate connected between the upper panel and the lower arc plate; a front end of the bowl body is a semicircular milk outlet; a semicircular mounting plate extends upward from the milk outlet; an edge of the semicircular mounting plate and a front edge of the lower arc plate together form a annular edge and the front end of the pumping nozzle is detachably connected to the annular edge of the bowl body.

2. The milk bowl for a breast pump according to claim 1, characterized by further comprising a pumping nozzle, wherein the pumping nozzle is in a shape of a horn reduced from front to back, and a rear port of the pumping nozzle is hermetically connected to and in communication with the milk pumping port; and a front end of the pumping nozzle is detachably connected to a front end of the bowl body, and the pumping nozzle hermetically blocks the milk outlet of the milk storage cavity.

3. The milk bowl for a breast pump according to claim 1, characterized in that the three-way valve is located at a junction of the upper panel and the rear end plate; an opening of the milk pumping port is disposed forward; an opening of the milk flowing port is disposed obliquely downward, horizontally forward or vertically downward; an opening of the negative pressure port faces upward and penetrates the upper panel, an opening edge of the negative pressure port and the upper panel are integrated, an interior of a rear end face of the negative pressure port and the rear end plate are integrated, and the milk pumping port and the milk flowing port are suspended in the milk storage cavity; and the negative pressure port is internally provided with an airbag slot.

4. The milk bowl for a breast pump according to claim 1, characterized in that the annular edge is folded outward to form an annular convex edge, an edge of the front end of the pumping

nozzle is folded outward to form an annular clamping recess with a U-shaped cross section, and the annular clamping recess is hermetically clamped on the annular convex edge; a receding recess matching an outer wall of the pumping nozzle is disposed on each of a front surface of the semicircular mounting plate and an inner surface of the upper panel of the bowl body;

the pumping nozzle is made of elastic rubber; and a gap is reserved between the pumping nozzle and an inner wall of the bowl body.

5. The milk bowl for a breast pump according to claim 1, characterized in that a one-way diaphragm valve is disposed at the milk flowing port.

6. The milk bowl for a breast pump according to claim 1, characterized in that a duckbill valve made of rubber is disposed on the milk flowing port.

7. A breast pump, characterized by comprising the milk bowl for a breast pump according to any one of claims 4 to 5 and a main unit, wherein the main unit comprises a shell; the main unit is disposed in a space formed by a rear side of a semicircular mounting plate and an upper side of an upper panel of a bowl body, and the shell of the main unit and the bowl body together form a hemispherical surface.

8. The breast pump according to claim 7, characterized in that the main unit further comprises an L-shaped mounting seat composed of a front panel and a bottom panel, the front panel of the mounting seat is attached to the semicircular mounting plate of the bowl body, and a bottom surface of the mounting seat is attached to the upper side of the upper panel of the bowl body;

a mounting cavity is formed between the mounting seat and the shell, and a control main board, a power supply, a negative pressure device, an air release valve and an airbag are disposed in the mounting cavity; an opening is provided at an upper end of the airbag, the opening is folded outward with a circle of elliptical clamping recess with a U-shaped cross section, and the elliptical clamping recess at the opening of the airbag is clamped at an upper end edge of an opening of a negative pressure port; a pressure frame is disposed on a lower surface of the mounting seat, a groove is provided around the pressure frame, the pressure frame is hermetically inserted in the opening of the airbag and the upper end of the airbag is hermetically inserted in the groove; an air pipe of the air release valve and an air pipe of the negative pressure device pass through the pressure frame to be in communication with an interior of the airbag;

the power supply, the negative pressure device and the air release valve are all connected to

the control main board, and an operation key module located on an upper surface of the shell is disposed on the control main board;

the air release valve and the negative pressure device are in communication with the airbag by means of the air pipes, and the airbag is located in the negative pressure port and seals the opening of the negative pressure port; and

reinforcing ribs are disposed on an inner side wall of the airbag.