ROTATING BELT-CONVEYOR SUSHI COUNTER

[TECHNICAL FIELD]

[0001]

The present invention relates to a rotating belt-conveyor sushi counter to be installed on a floor of a rotating sushi restaurant.

[BACKGROUND ART]

[0002]

Various proposals have so far been made on a rotating eating counter that includes a conveyor driven by a crescent chain or the like, to circulatingly carry food to be served to customers around the conveyor, which is popularly employed as a rotating sushi counter. Such counter can be found, for example, in JP-A No.2002-17548.

[0003]

Fig. 4 is a side view from a customer seat side, showing a conventional rotating belt-conveyor sushi counter installed in a rotating sushi restaurant and Fig. 5 is a fragmentary perspective view thereof, including a cross-sectional structure. As shown therein, the conventional rotating belt-conveyor sushi counter A1 includes a conveyor lane A4 mounted at an upper level along a counter table A3, along which customer seats A2 are located.

[0004]

On the conveyor lane A4, endless conveyors A5, A6 having a horizontal carrying surface are mounted and driven so as to circulate, and the conveyors A5, A6 carry various types of sushi set on a dish

T through in front of a customer C, so that upon arrival of a favorite sushi the customer C can reach toward the conveyor lane A4, to thereby retrieve the dish T with the sushi to the counter table A3.

[0005]

The inside of the conveyor lane A4 is allocated as a working space for a sushi chef P to prepare the sushi, and under the conveyor lane A4 a vertical partition wall A7 is provided, by which the working space is completely isolated from the side of the counter table A3 where the customer seats A2 are located.

[0006]

In such conventional rotating belt-conveyor sushi counter A1, usually a refrigerator A8 for temporarily storing the sushi is placed behind the partition wall A7, at a position unseen from the customer seats A2. In the case where the customer C orders a sushi other than those being served on the conveyor lane A4, the sushi chef P in the working space prepares the ordered sushi and offers it to the customer C. The dish T used by the customer C is collected from the counter table A3 and carried to a washing area which is not shown, by an employee M located on the side of the customer seats A2.

[0007]

With the foregoing rotating belt-conveyor sushi counter installed in the conventional rotating sushi restaurant, since the tableware such as an empty dish left after the customer has consumed the sushi is collected from the counter table by the employee in the customer area, a certain number of employees appropriate for the number of customer seats have to be constantly allocated on the floor, which leads to an increase in personnel expenses.

[0008]

Also, a large floor area is required because the employees have to be placed behind the customer seats, and the employees suffer considerable fatigue because they have to carry the collected tableware such as the dishes, from the counter table to the distantly located washing area.

[0009]

Besides, the dish on the counter table has to be collected from behind the customer on the customer seat over his/her shoulder, and therefore the collecting work is difficult to be executed, and takes longer time especially when the restaurant is crowded, which may make the customer feel uncomfortable and thus the service quality may be degraded.

[0010]

Further, when the customer orders a sushi not being served on the conveyor lane, the sushi chef in the working space inside the conveyor lane reaches over the sushi being carried on the conveyor lane so as to deliver the ordered sushi to the customer. In such a case, dust or the like stuck to the garment of the sushi chef may fall on the sushi moving below, which degrades the sanitary condition.

In addition, because of the partition wall at the front of the counter table, which keeps the working space from being seen from the customer seat side, the working space is prone to become unsanitary.

[0011]

Accordingly, an object of the present invention is to minimize the foregoing drawback incidental to the conventional art, and to

provide a rotating belt-conveyor sushi counter that eliminates the need to locate the employee who enters the customer area to collect the tableware such as the dishes, to thereby reduce the personnel expenses, and enables reducing the customer area size and the fatigue of the employees, and upgrading the sanitary condition and the service quality.

[SUMMARY OF THE INVENTION]

[0012]

To achieve the foregoing object, the present invention provides a rotating belt-conveyor sushi counter comprising a conveyor lane including an endless conveyor driven to circulate along a counter table accompanied with a plurality of customer seats, to thereby serve a sushi and other food set on a dish by the conveyor; wherein a working space for an employee is located opposite to the side of the customer seats across the conveyor lane, at a floor level a step lower than that of the customer seat side.

[0013]

Further, an end portion of the counter table opposite to the customer seat side extends into the working space through under the conveyor lane, and an upper surface of the counter table and a lower face of the conveyor lane opposing the counter table define an opening that achieves communication between the customer seat side and the working space, to thereby enable collecting tableware such as a used dish from a portion of the counter table on the customer seat side into the working space, and delivering the sushi and a drink to the customer seat side.

[0014]

According to the present invention, tableware such as the used dish left on the customer seat side of the counter table after consumption by the customer can be collected from the working space through the opening under the conveyor lane. Such arrangement eliminates, unlike the conventional rotating belt-conveyor sushi counter, the need to locate the employee behind the customer for collecting the used tableware, thereby enabling reducing the personnel expenses.

[0015]

Also, since it is no longer necessary that the employee enters the customer area, the floor area in the restaurant can be more efficiently utilized, such that a larger number of customer seats can be placed in a limited floor area, and since there is no need to carry the collected dishes through a long way behind the customer seats to the washing area, the fatigue of the employee can be alleviated.

[0016]

Also, it is no longer necessary to collect the dish on the counter table from behind the customer on the customer seat over his/her shoulder as in the conventional system, and therefore the collection work can be easily and quickly performed, and the customer can fully enjoy the sushi without disturbance, which leads to upgraded service quality.

[0017]

Further, in the case where the customer orders a sushi not being served on the conveyor lane, the ordered sushi can be delivered

to the relevant customer through under the conveyor lane, which improves the sanitary condition. Also, since the situation in the working space can be constantly seen from the customer seat side through the opening, de degradation in sanitary condition in the working space can be spontaneously suppressed.

[0018]

Further, the customer on the customer seat can utilize a larger space on the counter table in front of him/her, and therefore the customer can comfortably enjoy the sushi without feeling tight, though the adjacent customer seat is closely located. Also, the portion of the counter table extending into the working space can also be utilized for temporarily placing the collected tableware such as the used dishes.

[0019]

Since the floor level of the working space is a step lower than that of the customer area, the employee in the working space can collect through the opening the used dish left on the counter table after consumption by the customer, simply by slightly crouching.

[0020]

Still further, since the floor level of the working space is a step lower than that of the customer area, the difference in eye level between the customer on the customer seat and the employee standing in the working space is reduced, so that the employee can avoid putting psychological pressure on the customer.

[BRIEF DESCRIPTION OF THE DRAWINGS]

Fig. 1 is a side view from a customer seat side, showing a rotating belt-conveyor sushi counter according to an embodiment of the present invention;

Fig. 2 is a fragmentary perspective view showing the rotating belt-conveyor sushi counter including a cross-sectional structure thereof, according to the embodiment;

Fig. 3 is a side view from a customer seat side, showing a rotating belt-conveyor sushi counter according to another embodiment of the present invention;

Fig. 4 is a side view from a customer seat side, showing a conventional rotating belt-conveyor sushi counter; and

Fig. 5 is a fragmentary perspective view showing the conventional rotating belt-conveyor sushi counter, including a cross-sectional structure thereof.

[DETAILED DESCRIPTION]

[0021]

Fig. 1 is a side view from the customer seat side, showing a rotating belt-conveyor sushi counter according to an embodiment of the present invention, and Fig. 2 is a fragmentary perspective view thereof including a cross-sectional structure. As shown therein, the rotating belt-conveyor sushi counter 1 according to the present invention includes a conveyor lane 4 that carries various types of sushi S set on a dish T along a counter table 3 along which customer seats 2 are located.

[0022]

The conveyor lane 4 includes conveyors 5, 6 driven to endlessly

circulate by a driving source, which is not shown. The conveyors 5, 6 according to this embodiment are, though not illustrated in details, of a known type that employs a crescent chain constituted of a multitude of semilunar slat plates, connected so as to form a carrying surface for the sushi S set on the dish T.

[0023]

In the rotating belt-conveyor sushi counter 1 according to the present invention, the conveyor lane 4 is supported by columns 7 provided at a predetermined interval, and an opening 8 is provided between the columns 7, and between the conveyor lane 4 and the counter table 3.

[0024]

The end portion of the counter table 3 opposite to the customer seat side intrudes into a working space 9 through under the conveyor lane 4, and the portion between the lower face of the conveyor lane 4 and the upper surface of the counter table 3, which defines the opening 8, has a sufficient height to collect a plurality of dishes that are piled up. The portion of the counter table 3 extending into the working space 9 can also be utilized for temporarily placing the used dishes T collected by the employee in the working space 9.

[0025]

It is to be noted that in the rotating belt-conveyor sushi counter 1 according to this embodiment a sushi chef is not present in the working space 9 inside the conveyor lane 4 along the counter table 3, but preparing the sushi in a location unseen from the customer seats 2, and only the employee assisting the customer is located in the working space 9.

[0026]

As shown in Fig. 2, in the rotating belt-conveyor sushi counter 1 according to this embodiment the floor level of a working section 11 including the working space 9 is a step lower than that of a customer area 10 in which the customer seats 2 are provided, so that the employee in the working space 9 can easily collect through the opening 8 the used dish T left on the counter table 3 after consumption by the customer C, merely by slightly crouching.

[0027]

Also, the difference in floor level between the customer area 10 and the working section 11 offers the advantage that the difference in eye level between the customer C on the customer seat 2 and the employee M standing in the working space is reduced, so that the employee M can avoid putting psychological pressure on the customer C.

[0028]

Under the portion of the counter table 3 extending into the working space 9, a high-speed conveyor lane 12 is provided for quickly carrying a sushi S not being served on the conveyor lane 4 and ordered by the customer C, to the position close to the customer C. Under the high-speed conveyor lane, further, a tableware collecting conveyor lane 13 is provided for carrying the used dish T collected by the employee M from the customer C, to the washing area.

[0029]

The high-speed conveyor lane 12 and the tableware collecting conveyor lane 13 may be constituted of a conveyor of the same structure as the conveyors 5, 6 employed for the conveyor lane 4, or of a known

conveyor such as a belt conveyor or the like instead.

[0030]

As already stated, in the rotating belt-conveyor sushi counter 1 according to the present invention, the employee M is located only in the working space 9 inside the conveyor lane 4, and not present in the customer area 10. Also, the sushi chef preparing the sushi S is not present in the working space 9, but in another location not shown in the drawings.

[0031]

The customer C on the customer seat 2 picks up a dish T carrying a favorite sushi S from the conveyors 5, 6 running on the conveyor lane 4, and puts it down on the counter table 3 for consumption.

[0032]

The dish T that has turned empty after the customer has consumed the sushi S is collected from the counter table 3 through the opening 8, by the employee M in the working space 9, and placed on the conveyor running on the tableware collecting conveyor lane 13, to be automatically carried to the washing area of the tableware which is not shown, and washed by a dishwasher provided therein.

[0033]

Although not shown either, the dish washed in the washing area is transferred to the location where the sushi chef is preparing the sushi, so that a new sushi is set on the dish, and the dish with the new sushi is forwarded to the customer seat side on the conveyor 5 or conveyor 6 of the conveyor lane 4.

[0034]

In the case where the customer C has ordered a sushi not being

served on the conveyor lane 4, the employee M in the working space 9 who has accepted the order notifies the order to the sushi chef in the separate location. Then the sushi chef immediately prepares, upon receipt of the notice, the sushi ordered by the customer C and sets it on a dish, and forwards the dish to the position close to the relevant customer C, on the high-speed conveyor lane 12.

[0035]

The sushi delivered close to the customer C who has ordered by the high-speed conveyor lane 12 is received by the employee M in the working space 9, and immediately served through the opening 8 to the relevant customer C. Here, the opening 8 may also be utilized for serving a drink such as miso soup or beer to the customer C, not only for collecting the tableware.

[0036]

Fig. 3 is a side view from a customer seat side, showing a rotating belt-conveyor sushi counter according to another embodiment of the present invention, and the portions given the same numeral as those of Figs. 1 and 2 are of the same structure as those of the rotating belt-conveyor sushi counter 1 of the foregoing embodiment.

[0037]

The rotating belt-conveyor sushi counter 1' shown in Fig. 3 includes a clear glass window 14 that can be opened and closed as the case may be, provided in the opening 8 of the rotating belt-conveyor sushi counter 1. In this embodiment, the clear glass window 14 is of a sliding door type, which is opened and closed by a horizontal sliding motion. To constitute the clear glass window 14, a highly transparent and impact-resistant organic glass, such

as an acrylic glass may be employed, in addition to a popular inorganic clear glass. Also, a pattern designed so as not to spoil the function as clear glass may be drawn on the glass surface.

[0038]

The clear glass window 14 may usually be kept closed, and opened only when collecting the tableware such as the dish T and a teacup from the customer C or serving the sushi ordered by the customer, to thereby prevent airflow from the working space 9, and noise generated by the employee upon handling the tableware such as the dish, from reaching the customer seat side through the opening 8.

[INDUSTRIAL APPLICABILITY]

[0039]

The rotating belt-conveyor sushi counter according to the present invention is applicable to a rotating sushi restaurant, and especially beneficial if applied to a restaurant with a large number of customer seats.

WHAT IS CLAIMED IS:

1. A rotating belt-conveyor sushi counter comprising a conveyor lane including an endless conveyor driven to circulate along a counter table accompanied with a plurality of customer seats, to thereby serve a sushi and other food set on a dish by the conveyor; wherein a working space for an employee is located opposite to the side of the customer seats across the conveyor lane, at a floor level a step lower than that of the customer seat side; an end portion of the counter table opposite to the customer seat side extends into the working space through under the conveyor lane; and an upper surface of the counter table and a lower face of the conveyor lane opposing the counter table define an opening that achieves communication between the customer seat side and the working space, to thereby enable collecting tableware such as a used dish from a portion of the counter table on the customer seat side into the working space, and delivering the sushi and a drink to the customer seat side.