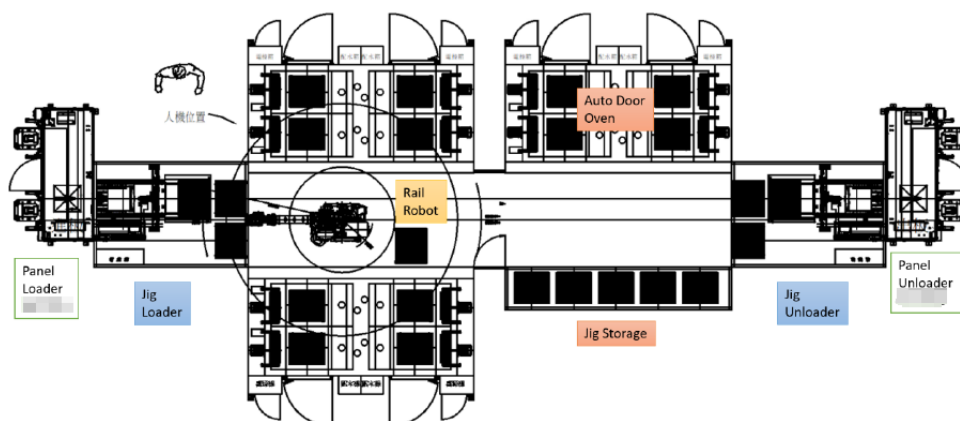


Auto Baking Oven System L-GOLH-818-1248



Specification

1. Work
 - ① Panel size: W500mm x L515mm, single size
 - ② Panel thickness: 0.05~3.0mm. **Panel weight Max. 1.5 kgs**
 - ③ Jig: frame type with 4 sided clamping, clamping within 8 mm from edge
2. Tack time
18 sec for one panel
3. Typical condition
 - ① 24 panel in one carry lot
 - ② Two lots (48pnl) baking simultaneously in one chamber
 - ③ Four independent temperature chambers in one oven
 - ④ **Total 95 min baking, including heating-up, keeping and cooling. (70% of total production)**
Total 204 min baking, including heating-up, keeping and cooling. (30% of total production)
4. Configuration



ITEM	Content	Quanty
2	Jig Loader	1
3	Rail Robot	1
4	Jig unloader	1
5	Auto Door Oven	3
6	Jig storage	1
7	Fence	1
8	Jig	960
9	MGV	1

5. Flow

- ① Panel came from upper stream by conveyor. (panel loader by )
- ② Jig loader load panel onto the jig one by one.
- ③ After 24 jigs loaded, this lot of jigs will be transferred to buffer area.
- ④ Another 24 jigs loaded, also be transferred to buffer area.
- ⑤ The rail robot will pick up this 2 lots of jigs (totally 48 panels) to an empty auto door oven chamber for baking.
- ⑥ The rail robot will take out 2 lots of jigs (totally 48 panels) from an auto door oven chamber after baking.
- ⑦ The rail robot will put 2 lots of jigs (totally 48 panels) to the buffer area of jig unloader.
- ⑧ The rail robot will carry 2 lots of empty jigs from jig unloader.
- ⑨ The jig unloader will take off panel from jig and transport the panel by conveyor to downstream. (panel unloader by )

6. Jig loader and unloader

- ① Frame and cover by coated steel in ivory white color.
- ② Configuration including conveyor, panel picking from horizontal to vertical, jig clamp opening mechanism, jig cycling mechanism, buffer area.
- ③ Jig unloader as same in reverse.

7. Rail robot

- ① Japan Fanuc robot
- ② Servo motor with rail to move smoothly.
- ③ With zigzag side fork.
- ④ Follow system instruction to move automatically.

8. Auto door oven

- ① 4 chambers in one set of box oven.
- ② Inside by stainless material, outside by coated steel in ivory white color.
- ③ Each chamber controlled by independent PID temperature controller and SSR
- ④ Heating by stainless pipe heater
- ⑤ Hot air circulation by motor fan, side flow inside chamber.
- ⑥ Cleanness by HEPA filter.
- ⑦ Auto open mechanism for front door by liner rail and hold.
- ⑧ Back door can be opened manually with door open sensor by during maintenance.
- ⑨ Each chamber with one PLC and able to operate independently when off line from main system.
- ⑩ With water cooling for each chamber.


9. Jig storage

- ① Structure by alumina profile.
- ② By rail robot to take in and out the jig from storage shelves.
- ③ Storage capacity 240 pcs of jig.
- ④ With shelf empty detection

10. Fence

- ① Structure by alumina profile and acrylic material.
- ② Without cover and HEPA filter
- ③ With door for maintenance, with door interlock function.

11. Jig

- ① Made by alumina and stainless steel
- ② With 4 sided clamping function
- ③ Shall be proved by  before mass manufacture.

12. MGV

- ① Moving manually.
- ② Up-down by electric motor.
- ③ Usage for taking out or putting in jigs from back door of oven chamber when maintenance.
- ④ Capacity: Each time 24 jigs full panel loaded.
- ⑤ Not for usage of standing operator for maintenance.

13. Control

- ① Mitsubishi PLC and Proface touch panel for jig loader.
- ② Mitsubishi PLC and Proface touch panel for jig unloader.
- ③ Mitsubishi PLC and proface for system control.