



MADE-IN GERMANY

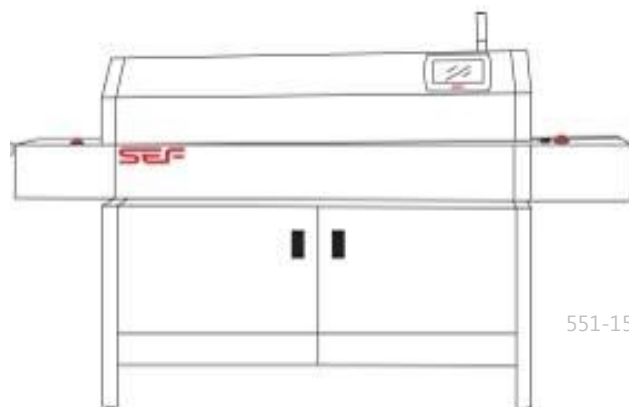
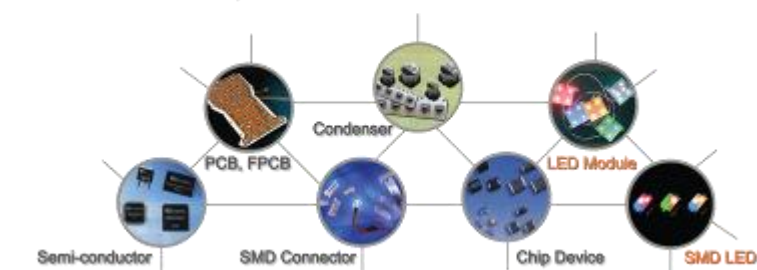
Reflow



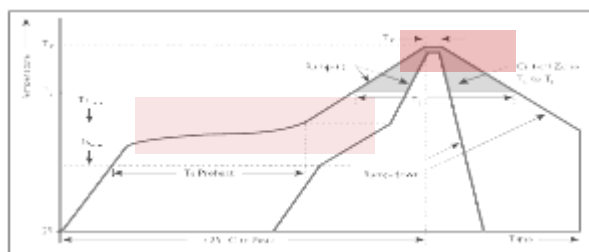
It is prohibited to copy or otherwise reproduce the product and the written documents either in whole or in part in their original or modified form.

Installation Manual for 551-10/15/20

LAB, QC SMD Test & Product Reflow



551-15 Model



made
in
Germany

It is necessary that you read this installation manual carefully and check installation environment prior to install the soldering system.

This manual is intended to aid the operator and installer in becoming familiar with the installation of the 551 series Reflow Oven.

There may be differences of application standard depending on the options

- λ Under Cabinet
- λ Exhaust Box
- λ Un Loader Plate
- λ Tower Signal Lamp

For further questions regarding the soldering system or to order spare parts, please contact us.

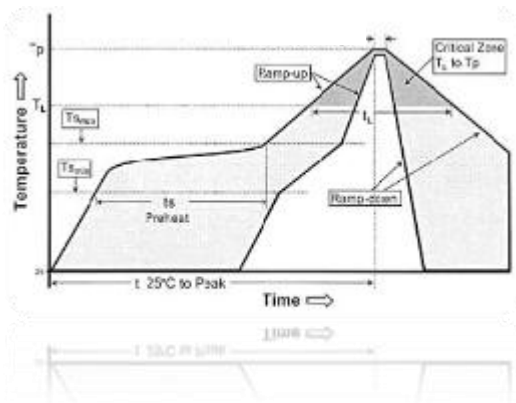
E. info@namaSMT.com T. +82+2+3141.0889

NAMA

Since 1988
www.namaSMT.com

Please feel free to contact us if the expression of the equipment installation manual contents is wrong.

- λ Thank you for purchasing SEF GmbH Reflow oven.
- λ This installation manual has been written for the authorized user. Basic knowledge in SMD soldering methods is assumed.
- λ It is recommended that the operator become familiar with the unit by reading this manual thoroughly prior to using the machine.



The full air convection soldering system 551 Series has been designed for the following tasks:

Specialized in LED, FPCB manufacturing, Semi-conductor, SMD Connector, component qualification, OI and R&D. Also, SMD components production, Small, Multi Reflow Soldering progress of production.

1. NamA Website

- λ Korea : NamA Electronic. www.namaSMT.com
- λ China : NamA Electronic. www.namaSMT.com.cn

2. Model : 551 Series

551-10/15/20 (3 Models)

2. Purpose of use

548 Series Small . Medium type 위한 Reflow Oven

- ✓ Smokeless reflow Soldering
- ✓ Pb Free environment parts reliability
- ✓ Small and Multi SMD Reflow Soldering
- ✓ FPCB, Semi-conductor, Switch SMD components endurance test.
- ✓ Through Plating Bond hardening.
- ✓ Solder Resist mask hardening
- ✓ Drying components.

SEF GmbH is specialized in industry welding Robot business and a German manufacturing company. NamA Electronic Industry supports general management of distribution, maintenance, and sales network in the SEF's primary Asian markets.

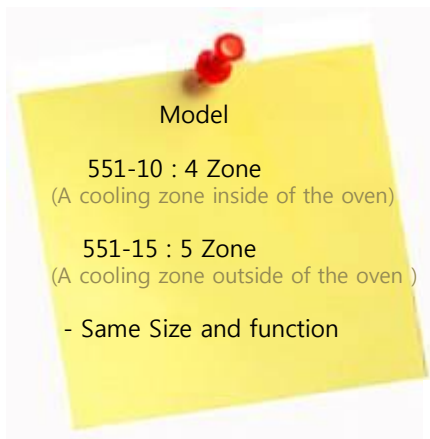
NamA will do our best in order to support effective use of customer equipment. Best wishes for helping our clients to develop and improve the quality of their products through use of 551 Series reflow oven.

JCPark

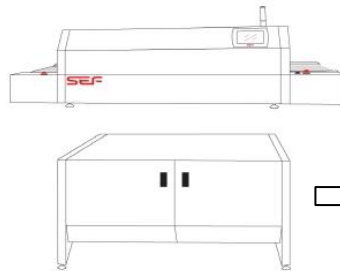
jcpark@neikorea.com
Tel: 01088090883
NamA



" Specialized in Small & medium multi products "



An order a 551.10 oven before November, 2014, the oven will be provided with 551.15 model name instead of 551.10.



2014'~5'

INDEX

551-10/15 series Reflow Machine

Installation Manual

551-10/15. have same size and functions

INDEX. And Other information..... 1.3

3

Installation environment and precautions

- 1) Power (AC POWER Line)
- 2) **Power** (Individual Distribution Box)
Distribution Box / Amount of the power.....5P
- 3) **Power** Cable Connecting method
Prepare Power Plug.....6P
- 4) Exhaust system connection method.....7P
 - 4-1) Exhaust system standards
 - 4-2) Location of exhaust port.....8P
 - 4-3) Equipment Dimension
- 5) Technical data for a table..... 9P
 - 5-1) Table information 10P
 - 5-2) Details drawing..... 11.12P
- 6) 551-10/15 optional item..... 13P
- 7) 기타

Exclusive Distributor Since 1995



Distributor Certificate

We hereby confirm that the company

Nam A Electronic Industry Co.

is our duly authorised distributor for Asia for our SMT products. The staff of Nam A has made a training for selling and servicing our products and is able to help their customers in all questions concerning these products. Nam A the distributor for us in Korea since 1995. Due to their excellent work we decided in 2000 to give them the whole Asian region to sell our products.

2005-07-06

Kurt Zimmermann
Kurt Zimmermann
- president -

Jens Ahlemeyer
Jens Ahlemeyer
- SMT sales manager -



Safety Installation Instructions (Direction for the environment of installation)

For installation, observance of the safety and processing instructions of SEF GmbH is required.

All users should follow the notice about safety environment.

Ref : NamA reserves the right to make changes without notice.

SEF Systec GmbH won't take any liability for damages or interruptions cause by non-observance of this information.

Use the soldering system only in proper condition, according to the intended use, safety- and danger conscious, and under consideration of all information provided in this installation manual.

4

- λ The soldering oven should be operated only for soldering system.
- λ The soldering oven should be used under authorized environment. (Ref. User Manual)
- λ The soldering oven should be checked the safety devices and the control devices on a regular basis.
- λ This soldering system should be operated by authorized person.
- λ All the operators are required to be well-informed of the manufacturer's instructions before they operate or install the oven.
- λ Machine warning signs such as "Safety""Caution" should always be near the machine.
- λ Leave flammable materials at least 70cm in all directions away from the oven..
- λ The power need to be kept off the soldering system when not in use.
- λ The service switch cabinet must be installed near the equipment.
- λ LCD touch screen panel can be damaged by any magnetic source or any external shock.
- λ Keep any heater, fan or anything which interfere with airflow away from the oven.
- λ Wear **insulated gloves** when inspecting the oven to prevent burning hands.
- λ A fire extinguisher should be placed near the oven.
- λ Customers in need of making reflow's table need to use fireproof table top.
- λ A manufactured table needs to be earthed.
- λ Before moving the equipment, ask to NamA for manufacturer's instructions
- λ Further guidance on safety complies with SEF's reflow standards and regulations. (Ref. User Manual)



Authorized other equipment which have a EU, CE, FCC, UL, CSA, JSA or etc mark can be used with the soldering system.



Wrong result can be caused by other equipment which makes inadequate noise being around the oven.

If any trouble is found, do not rush to turn on the oven but report to us for support.



1. Power supply (AC POWER Line)

The power supply in 551 Series ovens

Model	Power supply	Max Power	Weight
551-10	3 x 380V / (N 220V) / PE(Protective Earth)	12KW	190Kg
551-15		15KW	198Kg
551-20		21KW	560Kg w. Base Cabinet

5

- λ The mesh belt conveyor is standard. If you choose the finger type conveyor, there can be differences.
- λ If you select Exhaust Box option, power voltage will be raised.
- λ 551-10/15 are designed as a desk model. Base(under) Cabinet is an option.
- λ 551.20 includes a base cabinet basically.
- λ If you didn't choice a base(under) cabinet, customers can make or prepare the table by themselves.

2. Power (Individual Electricity Distribution Box)

Installation of an individual electricity distribution box and a circuit breaker for providing overcurrent protection.



Individual electricity distribution box and a circuit breaker

551 Series Reflow is a machine which needs a lot of power.

Please prepare an individual electricity distribution box and a circuit breaker, before installation of power distribution system in the neighboring places of the reflow oven.

Please turn off the power in the following situations;

- Not working
- Maintenance
- Inspection

We recommend that installation of an individual circuit breaker for the oven.

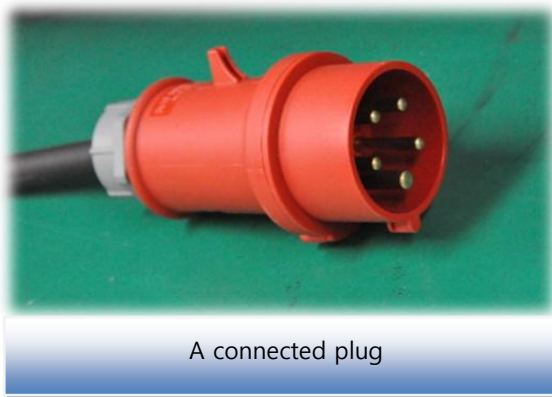
Other equipment can be shut down together if an overcurrent occurs.

Model	Power supply	Max Power	Capacity of circuit breaker
551-10	3 x 380V / (N 220V) / PE(Protective Earth)	12KW	50KW
551-15		15KW	50KW
551-20		21KW	60KW

- λ PE line in power distribution box must be connected.
- λ We recommend installing the electricity distribution box around 1 meter from the oven.
- λ Please use a circuit breaker approved electrical safety.
- λ After installation of a circuit breaker, the vender will do other installation.

3. Power cable connecting method.

In standard configuration the system 551.10/15 is equipped with a 16A-CEECON-plug.



A connected plug

For installation of the oven, a same connector in the left picture is connected with the oven.

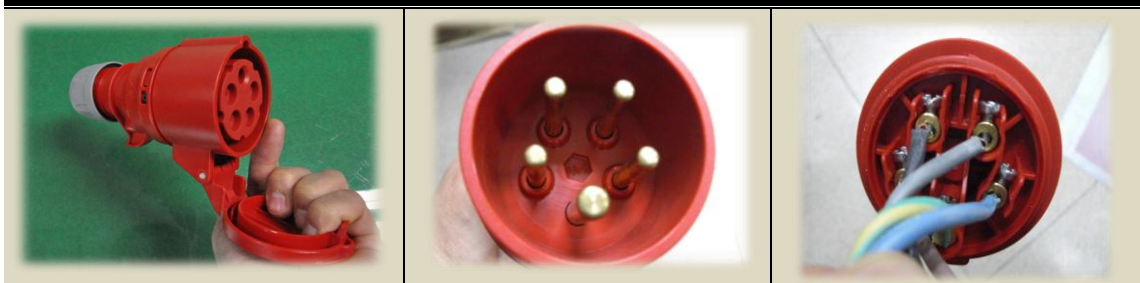
For connecting the power plug, a same connector in the following picture is required.

If you don't have the connector, it needs to be connected into distribution box directly.

6

A customer is required to prepare a power Plug.

Connector "16A CEECON"



- λ Using a connector provides convenient for moving the oven.
- λ It provides convenient when an operator inspects the oven.
- λ This connector is standard in Europe.
- λ If wires of the power are too thick, it may not be connected.

4. Exhaust system connection method

SEF GmbH 551 Series Reflow provides Exhaust Fan Motor Box (Exhaust Hose) with an option

The most common companies having their own exhaust functional system don't need to select the exhaust fan motor box option.

The customers who didn't select exhaust fan motor box need to connect their system or exhaust hose with the outlet of the 551.10/15.

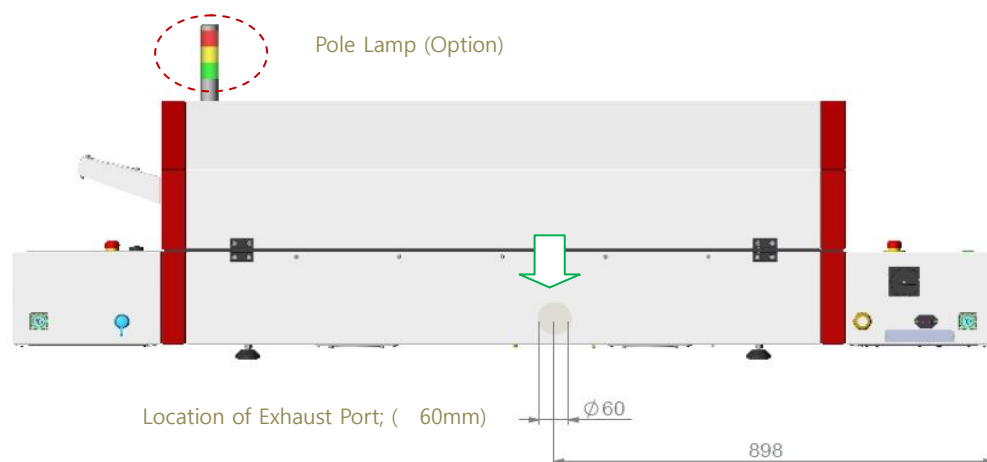
7

4-1) Exhaust Emission Standards for each model

Model	Necessary exhaust air volume and quantity	Exhaust port (Radius)	Note
551-10	Approx 270m3/ Hr x 1ea	60mm	We recommend to use a high temperature Teflon hose within 1.5m
551-15	Approx 270m3/ Hr x 1ea	60mm	
551-20	Approx 270m3/ Hr x 2ea	60mm	

4-2) Connecting position of the Exhaust port

The connection port is in the middle of the back side of the oven. (551-20 : Refer an extra picture)



- λ The port is in the middle of the back side of the oven.
- λ Connecting cable is in the left of the back side(See the next page)

4-3) 551-10/15 Reflow Dimension

The customers who didn't select exhaust fan motor box need to connect their system or exhaust hose with the outlet of the 551.10/15.



An under cabinet is optional. Please check how much space is need as the door opened.
When you use both loaded and unloaded plate, you need more space approx.40cm for each side

- Unloaded plate help the user to take things from the exit and it is divided 2 types depending on angle.(0° 45°)

5. Information for making table.

SEF GmbH 551-10/15 Reflow provide Base cabinet for an optional.

Basically, 551-20 includes a base cabinet.

A base under cabinet provides the same function as storage and a table which the oven can be placed.

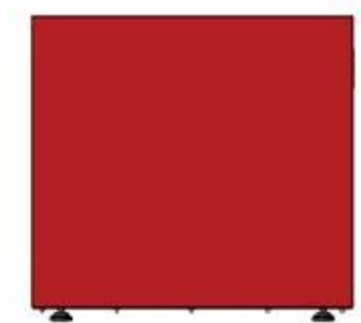
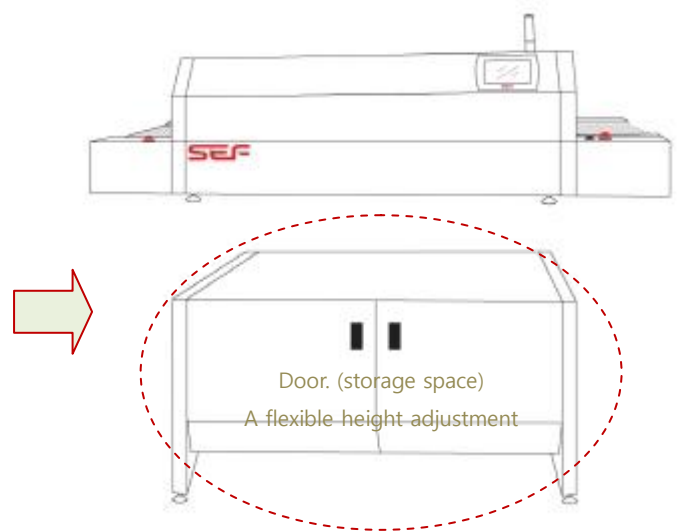
If you select cabinet option, air freight charge and customs duty will be added.

For the customer who does not select cabinet option, we provide a table making instruction to follow.

9

- λ SEF's cabinet is worth 3,500,000 won including air freight charge and customs duty.
- λ Size : 1400(L) x 750(W) x 715(H) 90Kg
- λ Packing Size : 152 x 87 x 98cm 140Kg
- λ Range of height adjustment : 1.26m ~1.3m
- λ The cabinet has storage space.

This is for SEF's cabinet.

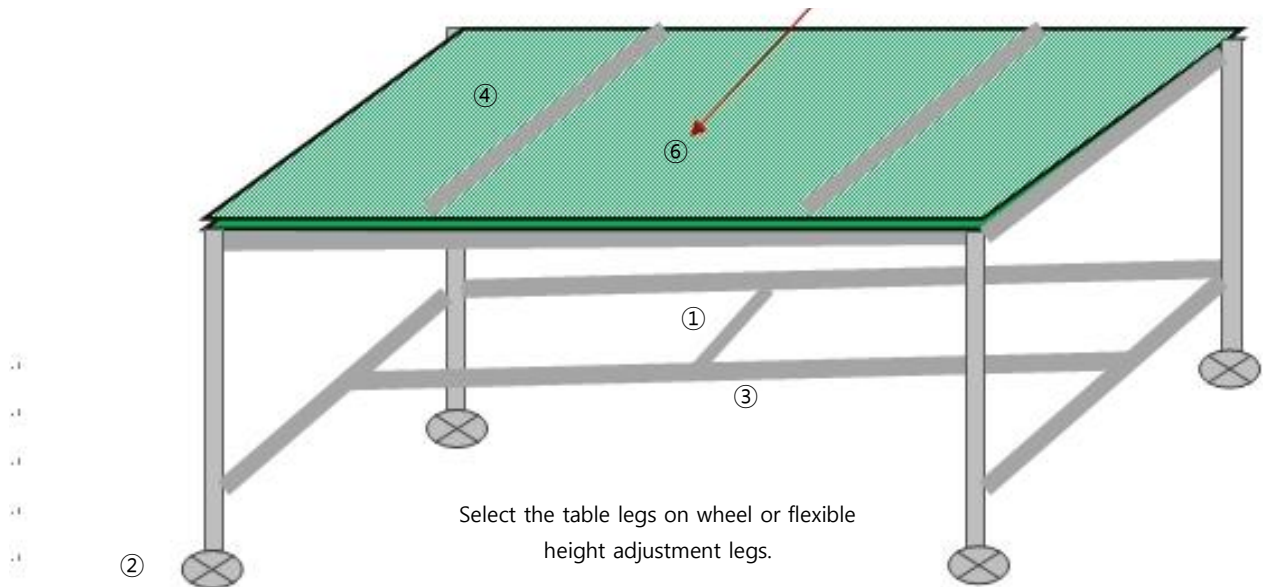


A flexible height adjustment for 4 legs.

5-1) Making table of 551-10 series oven

Position two bars 1/3 and 2/3 on the top of the plywood table.

- Use incombustible materials for surface finish on a table.



λ **Dimension of the oven** : 2010mm(W) x 790mm(D) x 550mm(H)

λ **Weight** : 190Kg +/- 10%

The table needs to be able to withstand the weight of the objects that weight up to 800kg.

λ **Material** : Aluminum profile /

The top of the table: plywood of at least 20~30mm thickness.

Surface finish of the top : incombustible materials

λ **Thickness** : Aluminum profile 50~60mm

λ **Dimension of the table** : 2100mm~2200mm(W) x 900mm(D) x 750mm(H)

The legs which support flexible height adjustment are good for inline system.

The legs which are on wheel are good for maintenance and movement.



Notice 1) The bar helps exhaust box to be placed on.

Its location is in the middle of the table.)

2) You can select legs type between flexible height adjustment legs and wheels.

3) Don't place center bar to be front of the table because it can disturb an operator.

4) You should use intermediate abutment bars on the top.

5) If you use a socket, it needs to be earthed.

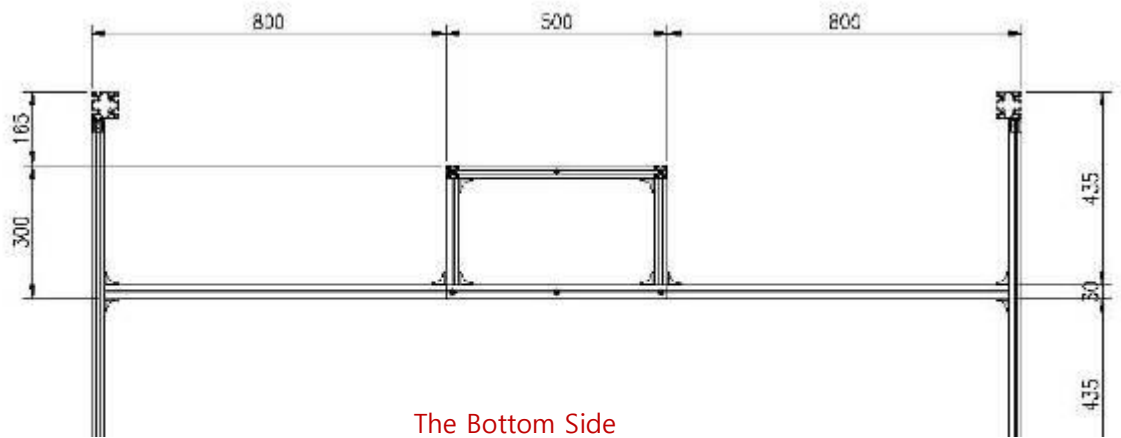
6) For fire protection, please use stainless steel for the top of the table.

The stainless steel surface should be earthed.

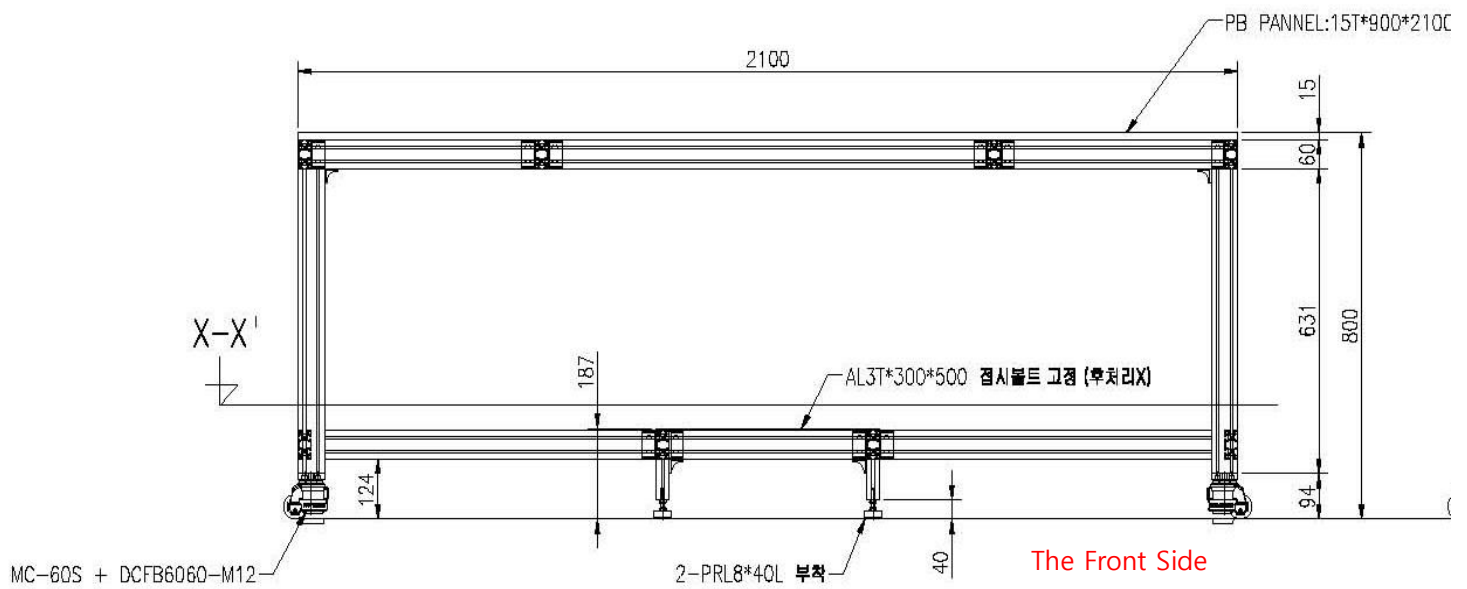


5-2) Detail drawing (Manufacturer: AutoKorea (located in Giheung-gu , Gyeonggi-do, Korea)

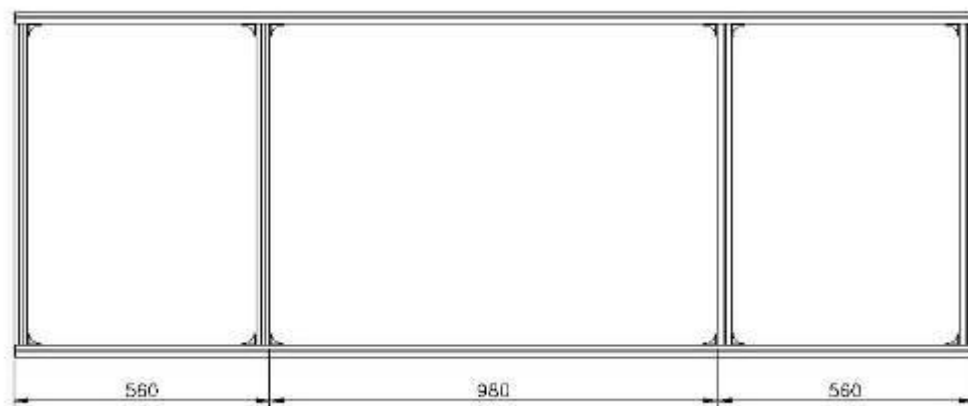
T. +82+10.5527.1092 Section chief : Young Tak Kim.)



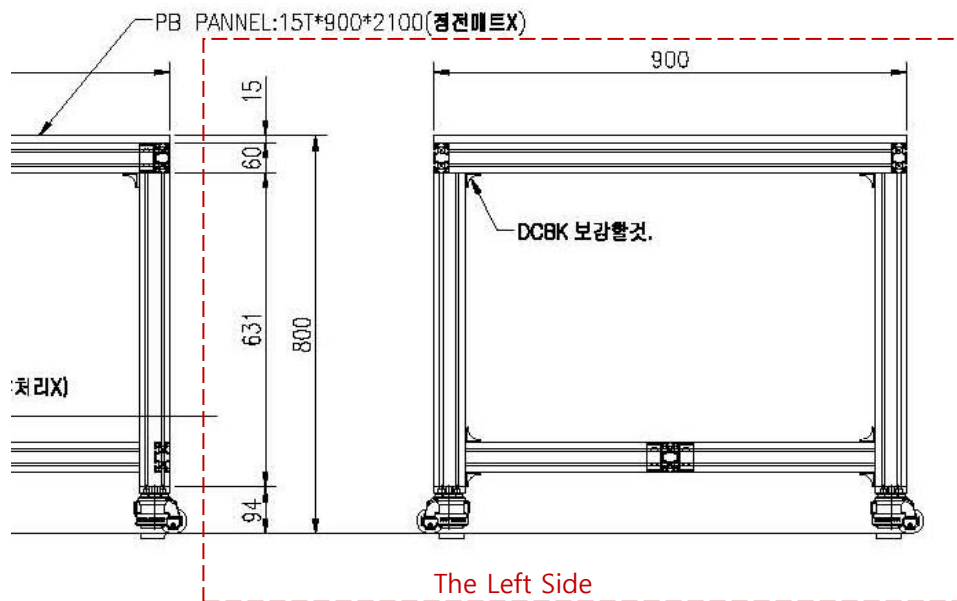
The Bottom Side



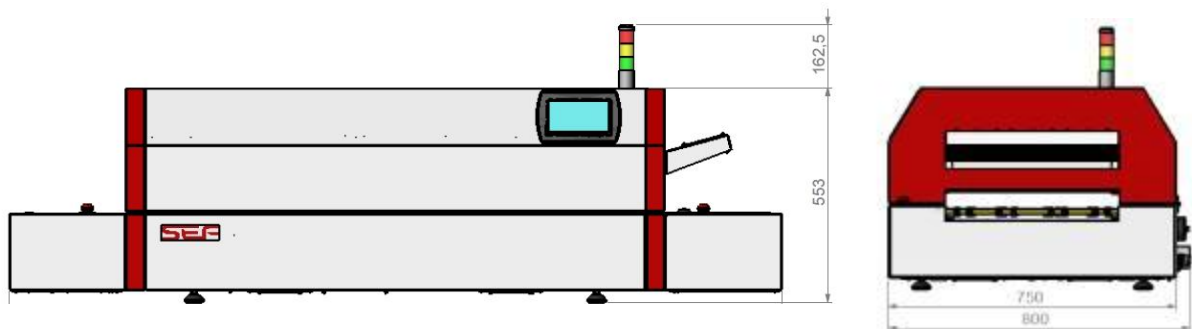
The Front Side



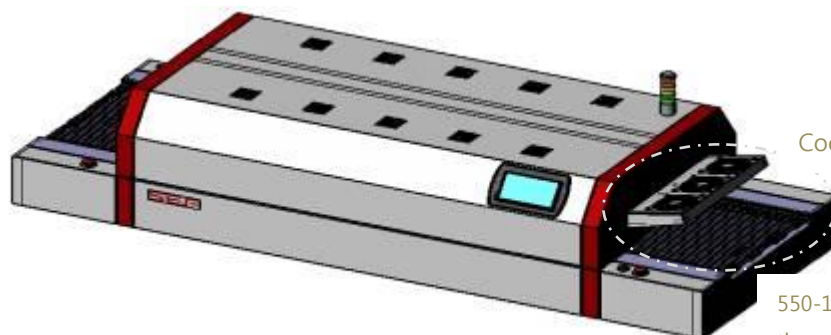
The Top Side



12

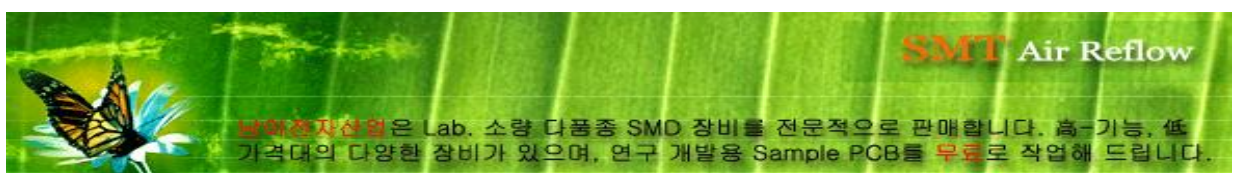


The front and left side of the oven



Cooling Fan for 550-15

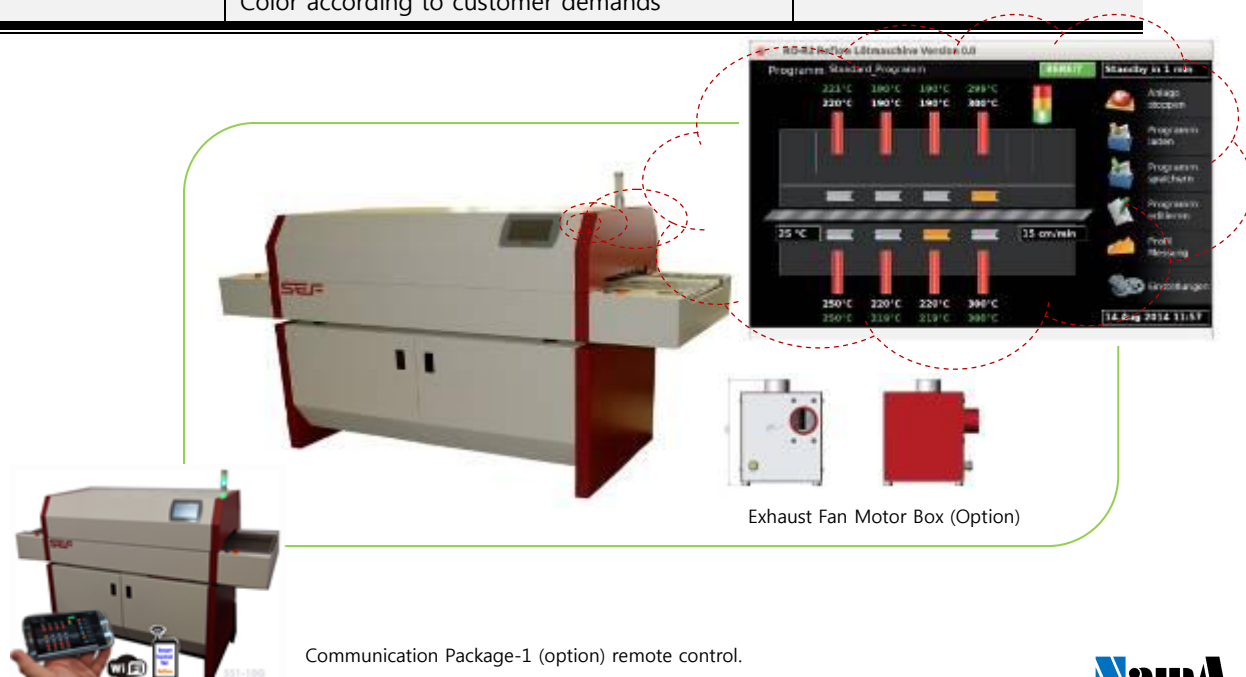
550-10 has a cooling zone inside
the soldering system(4 Zone)

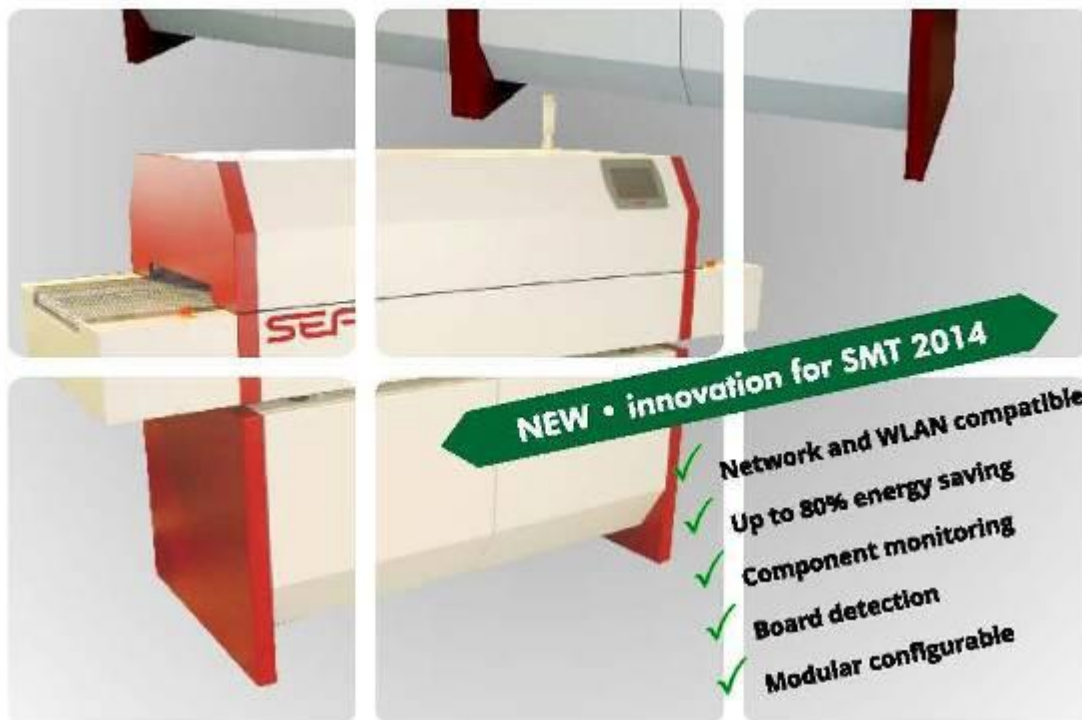


6. 551-10/15/20 Options

no	Part no	Description	Detail information
1	95.148.510	Base Cabinet Frame for 551-10/15 1400 x 750 x 715~750mm (L.W.H) Weight : approx 90Kg . 2 Color & 2 Doors	551.20 includes a base cabinet basically It is a table for a reflow oven. Storage compartment closeable with 2 doors.
2	95.148.515	Tower Signal Lamp Height 160mm	It is displayed on the LCD monitor
3	95.148.520	Power Save Package Single Board recognition(Board Counter) Power Down Module . When recognizing a PXB, Conveyor Stops, System heats up to Soldering Temperature and Start Conveyor Again	It is a function and electronic circuit for saving power energy. System changes to standby mode during idle. When recognizing a PCB, conveyor stops system heats up to soldering temperature and starts conveyor again.
4	95.148.530	Communication Package-1 PC Interface / WLAN	It is functional interface for external devices.
5	95.148.530-1	Communication Package-2 for SMTA Interface	EU Interface Code 방식
6	95.148.510-2	Un Load Plate 400 x 350mm Loader or Un Loader Plate	Receiving or sending the objects
7	95.148.540	Exhaust Fan Motor Box with High Temperature Hose 1.5m	external exhaust box
8	95.148.560	Finger Conveyor 35mm ~ 400mm Finger Chain Conveyor Manual width setting	For inline system
9	95.148.550	Individual painting for 551-10/15 Color according to customer demands	Change the color of the oven.

13





14

Reflow soldering system 551.10 and 551.20

Nama
Since 1988
www.NamaSMT.com

SEF
SYSTEC ENTWICKLUNG & FERTIGUNG



For further questions regarding the soldering system, please visit our website.
www.namaSMT.com

