

Teflon Grill Conveyor

~ Instruction Manual ~

SunMax food processors

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Notes

- Be sure to read this instruction manual before using the machine. Store it in a safe place near the machine so that operators of the machine can refer to the manual again at any time.
- If you are unsure about the operating procedure, do not operate the machine based on guesswork. You must read this instruction manual again and operate the machine in accordance with the correct procedure.
- Strictly follow the cautions provided in each section of this instruction manual.
- When the machine is delivered to you, our service personnel will attend your site, run a test operation and explain how to handle the machine. Do not under any circumstances operate the machine until the test operation has been completed during this on-site visit.

Serial numbers

Machine name	Teflon grill conveyor (2 conveyors) Teflon belt conveyor Net conveyor
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Model	S M - T G C 4 5 0 - 2 0 0 0 S M - B C 4 5 0 - 3 0 0 S M - N C 4 5 0 - 3 0 0
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Serial numbers	O T - 2 0 3 1 O T - 2 0 3 2 C B - 2 1 4 2 C N - 2 1 4 3
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Manufacture date	April 2007
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Safety

Sun Plant machines are generally manufactured in accordance with safety standards. However, as with all machinery, appropriate and safe use of this machine depends on proper and careful operation, maintenance and service by trained personnel.

To protect personal safety, familiarise yourself with and follow the safety regulations described below. Operate the machine safely by heeding the warning signs on the machine. After reading these safety regulations, make it a habit to always carry out work safely in line with the regulations.

Operating area

An operating area should be designated around all your machines, and you must mark off the area using brightly coloured hand rails and warning stripes. Take special care that only designated people enter the operating area when the machine is operating.

Do not place any other tools within the operating area.

Visual safety inspection

Before operating the machine:

1. Attach all safety guards and make sure they are functional.
2. Make sure that everybody clearly understands the safety procedures relating to the machine.
3. All utensils and tools that may cause personal injury or damage to the machine must be removed from the operating area.
4. Make sure that the machine is ready for operation.
5. Make sure that all instruction lights, alarms, pressure meters, other safety equipment and indicators are ready for operation.

After finishing operations:

Make sure that all pneumatic and electrical motion has stopped.

Safety during operations

1. Read and understand the operating guidelines and do not operate the machine until you are familiar with the details of the machine and how to operate it.
2. Do not operate the machine while the safety devices or guards are removed or not connected.
3. Always wear safety goggles, a helmet and other required safety gear.
4. Do not remove the warning labels adhered to the machine. Replace labels that have peeled off or been scratched away.
5. Inform all other persons within the operating area that you are going to use the machine and do not start the machine until all persons have moved outside the area.
6. Before starting the machine, remove all tools etc. from the operating area.
7. Do not operate the machine while wearing baggy clothes or with long hair left loose.
8. To prevent tripping over or falling towards the machine, do not pace any obstacles in the operating area.
9. Do not sit or stand on top of the machine.
10. Do not be silly around the machine.
11. Do not forget the emergency stop procedure.
12. When not using the machine, turn off both the air and power.

Danger

For maximum protection, lock the power source to make sure that no other person can operate the machine.

13. Do not operate the machine at a higher pressure or temperature than instructed.
14. Never manually operate the control switch while the power is on.
15. Always keep a careful eye on the instruction lights and warnings on the machine.
16. Do not leave the machine unattended while it is operating.
17. Do not continue to operate the machine while it has incomplete damage. Make sure that it has been serviced or the maintenance procedure has been completed before using it.
18. Do not place your fingers, hands or any other parts of your body inside the machine.

Safe servicing and maintenance

1. Do not carry out any repair until you are thoroughly familiar with the work being performed.
2. Be careful when moving a machine that has wheels.
3. Do not move the machine while maintenance work is being carried out.
4. Always keep a vigilant eye on the safety devices.
5. Use appropriate tools for the work.
6. While the power is live, do not open any cover that is connected to the electrical system.
7. Be particularly careful when adjusting the machine while it is operating.
8. Before carrying out maintenance, release all air, steam and other pressure points.
9. Shut off the air and power except in special circumstances.
10. Make sure the power is off before replacing the fuses.

Power-related safety

1. Only a qualified and trained electrical engineer should carry out electrical maintenance and repairs.
2. Always assume that the power is live when handling the machine.
3. Use the insulation and breakers to remove power from the circuits and the machine.
4. Use appropriate tools to check if a wire is connected.
5. Do not touch the capacitors until they have cooled down.
6. If requested to carry out repairs while the machine is operating, take the following preventive measures:
 - a. Make sure to keep all tools and your body away from the power source.
 - b. Be particularly careful if the humidity is high.
 - c. Choose a location with good surroundings.
7. Make sure that there is nobody near the machine before turning on the power.
8. Only open the door of the control panel when checking the power or wires. Check if the insulating devices are operating properly.
9. Always close the cover of the insulation board when operations have finished.

Safe cleaning

Cleaning procedure

1. Be careful when using toxic or flammable solvents.
2. Before cleaning the machine, close the power control panel and turn off the power.

Caution

3. As far as possible, promptly clean up spilled butter, flour, etc. from around the machine.

Safety labels

1. Clean the metal surface using a completely clean soft cloth soaked with rubbing alcohol.

Note:

Do not use a lacquer thinner or other type of thinner to clean the metal surface.

2. Let the alcohol evaporate away.
3. Remove the backing paper from the label.
4. Affix the label in accordance with the instructions on the warning label position drawing.

Note:

Affix labels in the designated positions. Make sure not to affix a label in any position where the temperature of the surface exceeds 121 °C.

5. Peel off the remaining backing papers one at a time and start pressing the label on, starting from its center.
6. Then affix the entire label.

Note:

Do not let the label touch your clothes or hands, as contaminants will easily stick to the label.

7. Make sure that all corners and edges have adhered securely.
8. If there are any wrinkles or bubbled areas of the label, peel it off, clean the surface with alcohol again and then affix a new label.

Warning plate

(1) Warning symbol

This warning symbol is standard use by the American National Standards Institute and is used on plates to prevent personal injury.




It is also used on the plates of the machine you have purchased. Warning plates with this symbol contain important instructions for preventing personal injury accidents, so strictly follow these instructions.



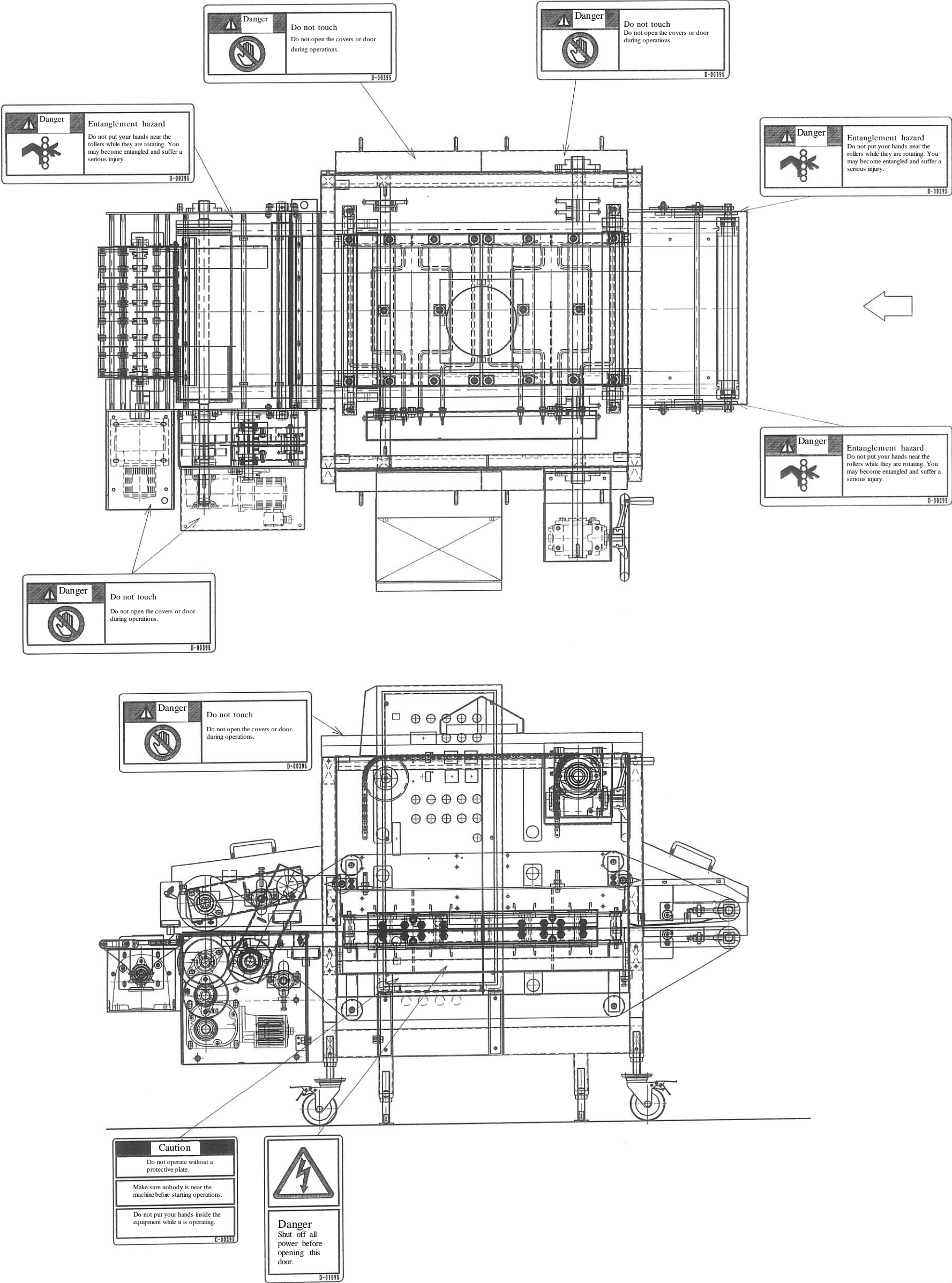
Safety cautions

Warning categories

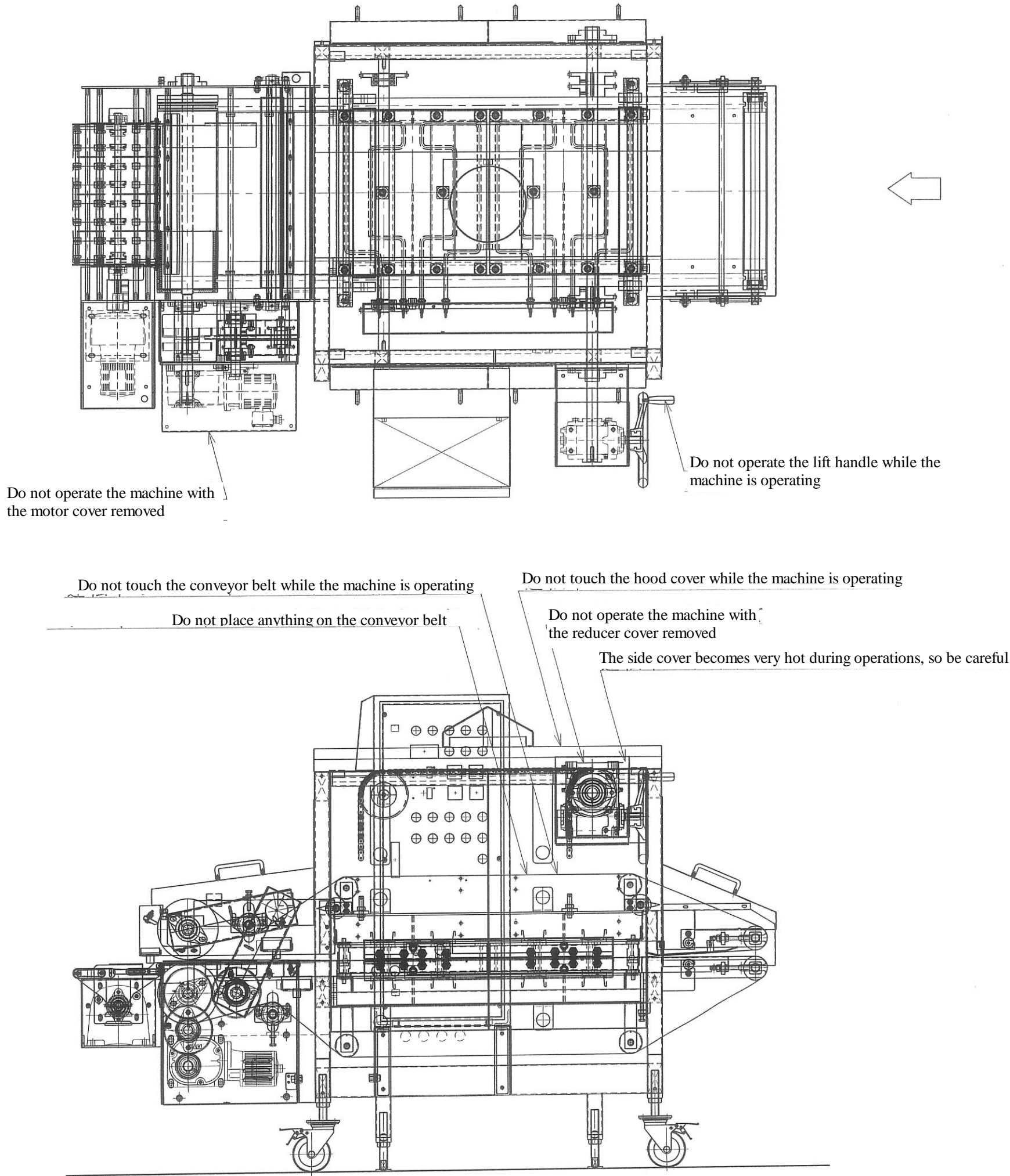
For better understanding of the warning labels in this instruction manual and on the machine, warnings are categorised as explained below. Understand the meaning of each category and follow the instructions.

-  **Danger** This term is used in safety cautions and warning labels relating to parts of the machine that pose imminent danger that, if not avoided, will likely cause death or serious injury. These safety cautions contain information on preventive measures that must be taken to avoid danger.
-  **Warning** This term is used in safety cautions and warning labels relating to parts of the machine that pose potential danger that, if not avoided, may cause death or serious injury. These safety cautions contain information on preventive measures that must be taken to avoid danger.
-  **Caution** This term is used in safety cautions and warning labels relating to parts of the machine that pose potential danger that, if not avoided, might cause minor or moderate injury. These safety cautions contain information on preventive measures that must be taken to avoid danger.

You must make sure that these warning labels are clearly visible at all times. If a label peels off or is defaced, replace it with a new label. Contact us or our service centres for a new label.



Common to both OT-2031 and OT-2032 (this overall diagram of the machine shows OT-2032)		名称	テフロンケミカルコンベヤー	縮尺	設計
		型式	SM-TGC450-2000		製図
					検図
					図番
御中	年 月 日	サン・プラント工業 株式会社		No. 1-3-1	



*Do not relocate the machine while it is operating

*Gain a good understanding of how to handle the machine before starting operations

OT-2031, OT-2032 台共通 (本図機械全体図はOT-2032)		名称	テフロン・リルコンベヤー	縮 尺	設計		
			取扱い注意箇所			製図	
		型式	SM-TGC450-2000			検図	
御中	年 月 日	サン・プラント工業 株式会社			図番		
					No.	1-4	

Safety Standards

Standards common to all machines

*During machine operations

1. Check safety before starting operations from the operating panel by making sure nobody is around the machine, making sure nobody is touching the machine, and making sure no object has been placed on the transport surfaces.
2. Do not open and close or remove and attach the covers on drive transmission units. Do not operate the machine with the covers removed.
3. Do not needlessly touch the safety covers on any drive transmission units.
4. Do not put your hand inside rotating parts or drive transmission units.
5. Do not touch the transport parts such as the conveyor net and belt.
6. Do not climb on top of, slide under or lean against the machine.
7. Do not remove and attach the various devices.
8. Do not relocate the machine.
9. As a rule, do not adjust the units of the machine while it is operating. Stop the machine before making any adjustments. If you must adjust any unit while the machine is operating, take sufficient steps to check safety first.
10. If products become clogged inside the machine, always stop the machine before removing the clogged products.
11. If the machine starts making an abnormal sound, stop operations.
12. Do not directly touch any wires or other parts inside the switch box with your hands.
13. If there is a power failure, make sure to turn off the machine.

*Cleaning and maintenance

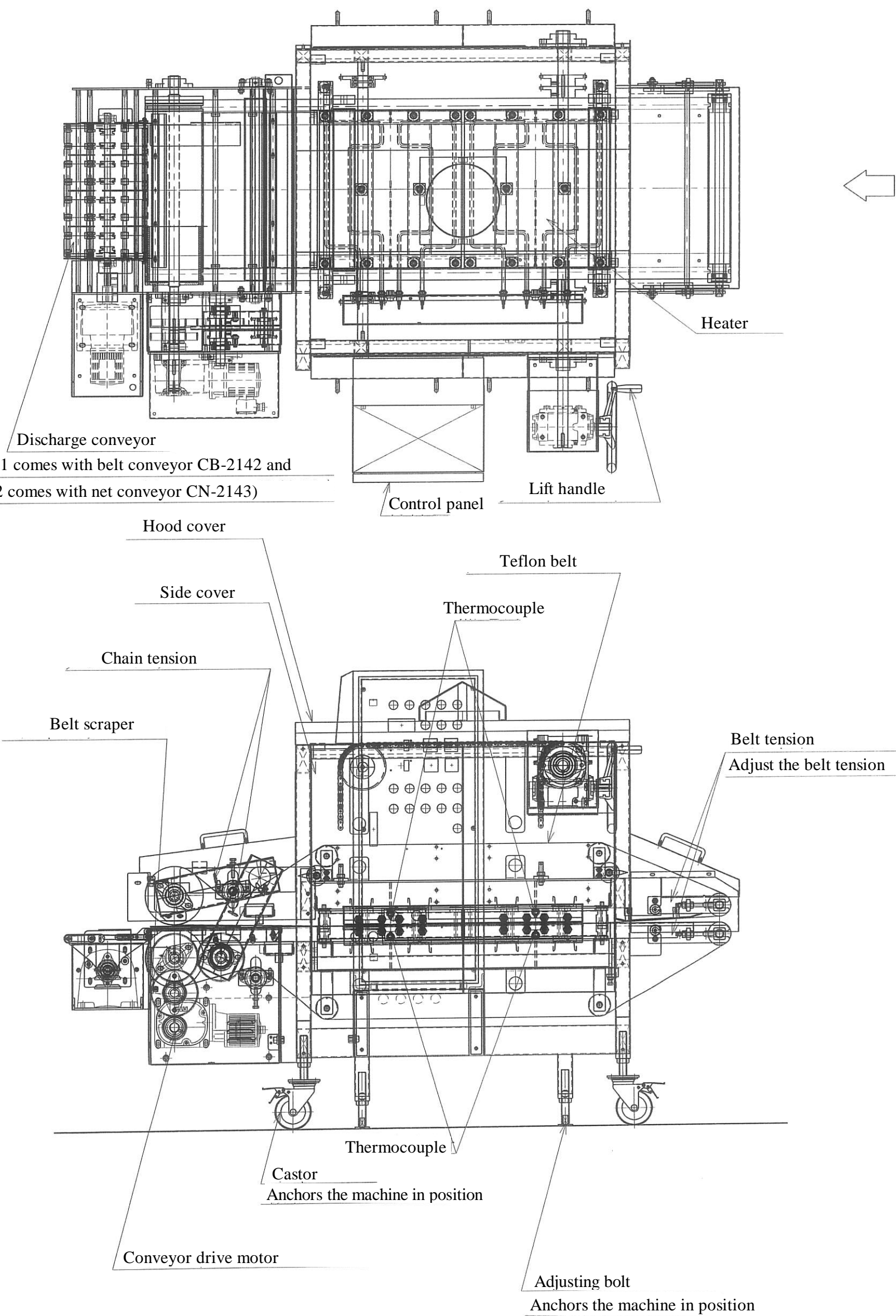
1. If using a brush or other implement to clean the machine directly, always stop the machine first. If you must clean the machine while it is operating, be particularly careful around the drive transmission units and transport units.
2. Do not directly splash water onto the operating panel or drive motor.
3. Several personnel are required when removing and attaching the various devices.
4. Stop the machine before replenishing the grease or filling the oil.
5. After washing the machine, wipe out all water from the oil bath.

*Stopping the machine and finishing operations

1. Before starting the next step after pressing the Stop operation button, visually check that the machine has completely stopped.
2. When you have finished operations, close the various main valves and turn off the power on the primary side.

*Other

1. Be very careful with replenishing devices and other devices that operate on a sensor or timer, because the main switch may still be on even though the device is stopped.
2. Make sure you fully understand how to handle the machine before operating it.



Common to both OT-2031 and OT-2032 (this overall diagram of the machine shows		名称 型式	テフロンベルトコンベヤー	縮 尺	設計		
OT-2032)			Names and functions of operating parts			製図	
			SM-TGC450-2000			検図	
御中	年 月 日	サン・プラント工業 株式会社			図番		
					No.	1-6	

Installation

If you purchase directly from us, usually a dedicated shipping company will transport the machine to you, so you must point out where you would like the machine installed and organise primary side wiring as far as the machine's electrical box.

1. Installation position

- Install the machine on a floor that has sufficient strength.
- If the level of the floor where the machine is installed deviates due to subsidence of the ground, the capacity and lifespan of the machine will be greatly affected.

2. Hoisting

- See "Specifications of the main unit" for the weight of the main unit of the machine. However, this weight is the weight according to the standard specifications. The weight will be greater if optional devices have been mounted onto the machine.
- To lift the main unit of the machine, use sling belts to hoist it. Do not under any circumstances place wire rope directly against the frame of the machine. Doing so is not only very dangerous but may also damage the machine. If hoisting the machine to change the layout of the plant, ask a specialist company to do it.

3. Installation

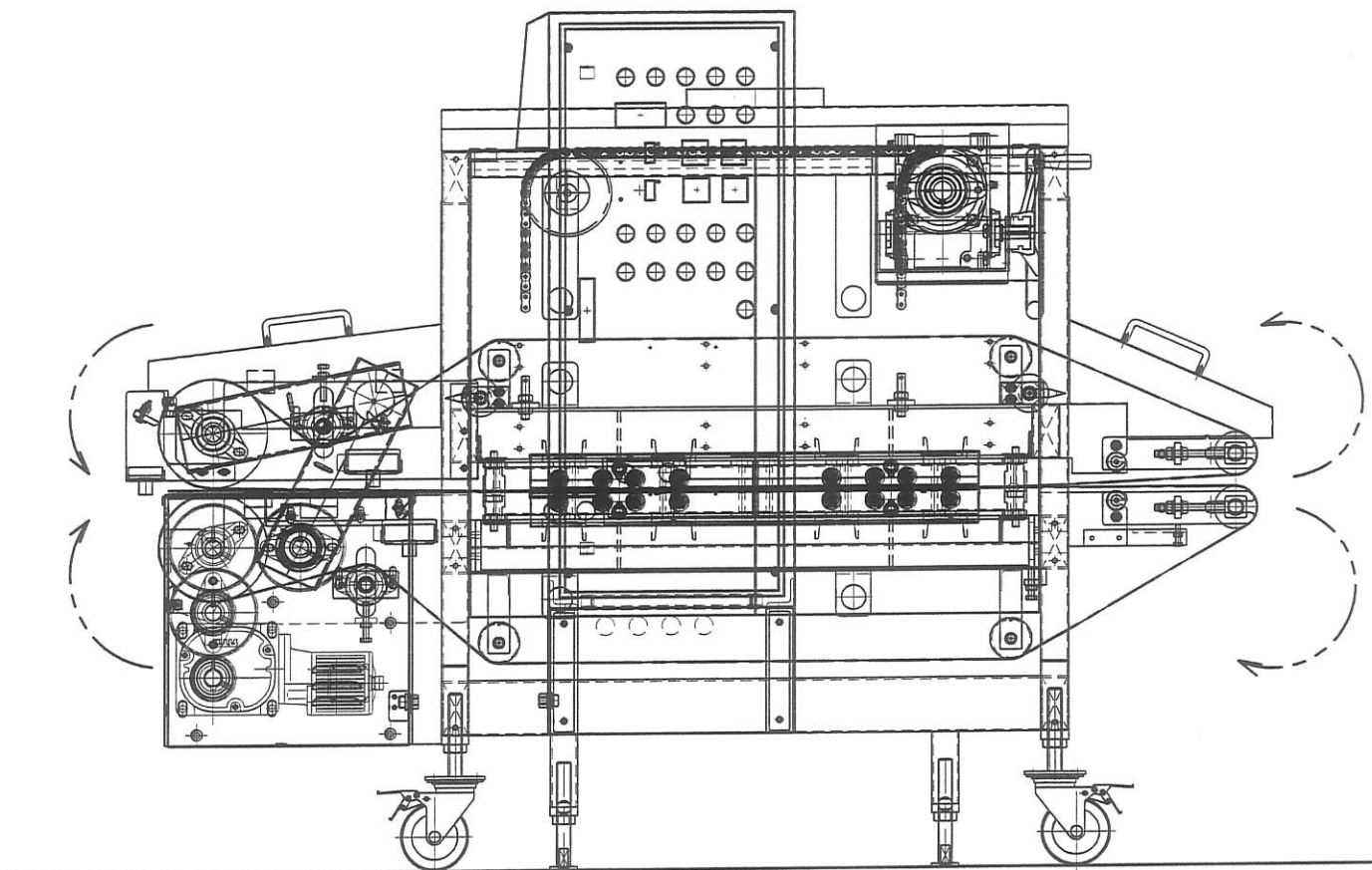
- Anchor bolts are not normally needed to anchor the machine. Place the machine on the floor with the adjusting bolts or castors in place.

4. Leveling

- After installing the machine, be sure to level it. If the machine is not completely levelled, it will not perform at its best, the lifespan of the machine will be greatly affected and the belt may meander.
- Place a spirit level on the machine and adjust its levelness in the left-right direction and front-rear direction.

SunMax

Attached reference diagram



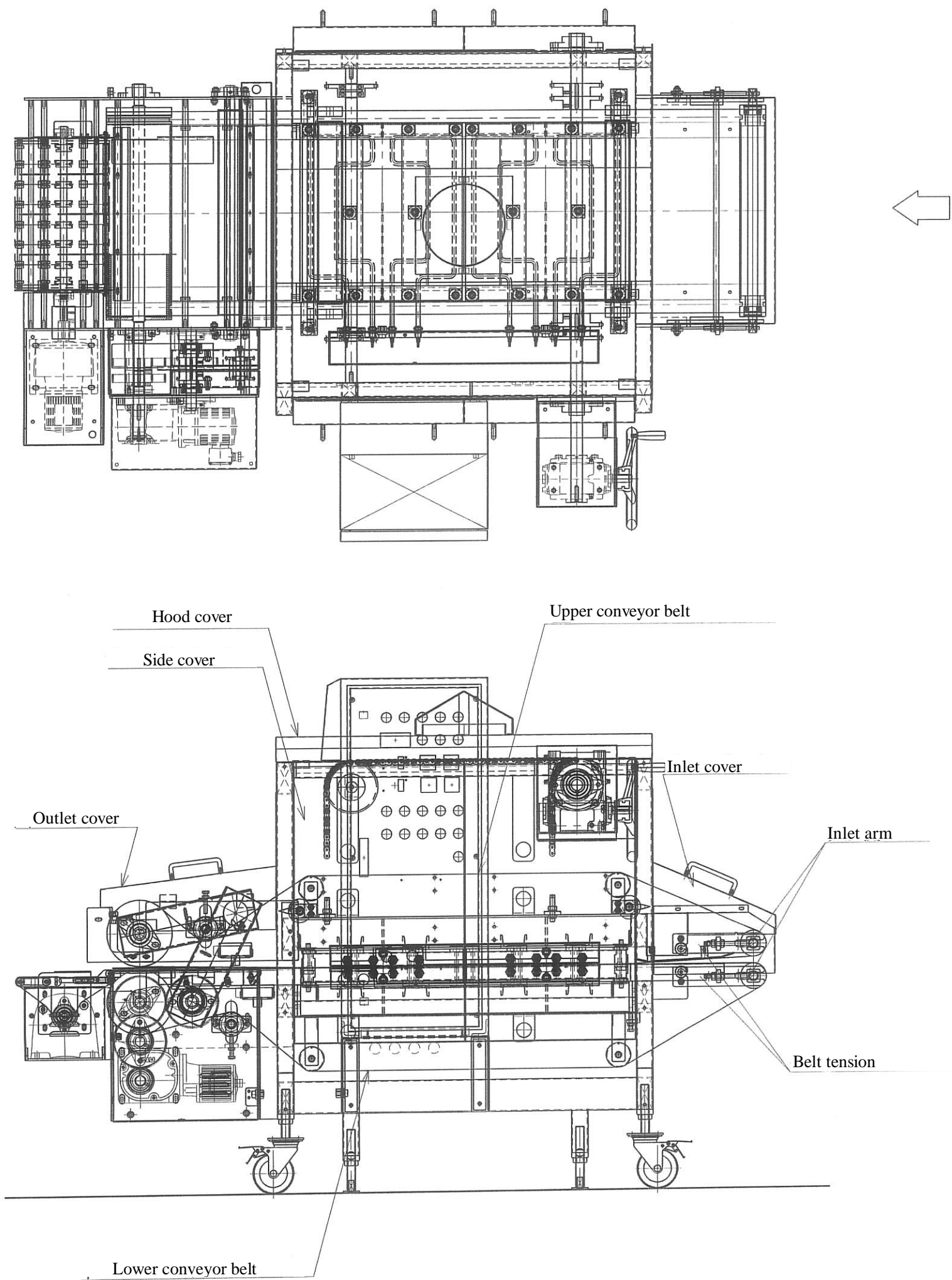
Common to both OT-2031 and OT-2032 (this overall diagram of the machine shows OT-2032)

テフロン・シリコン・ペーパー SM-TGC450-2000

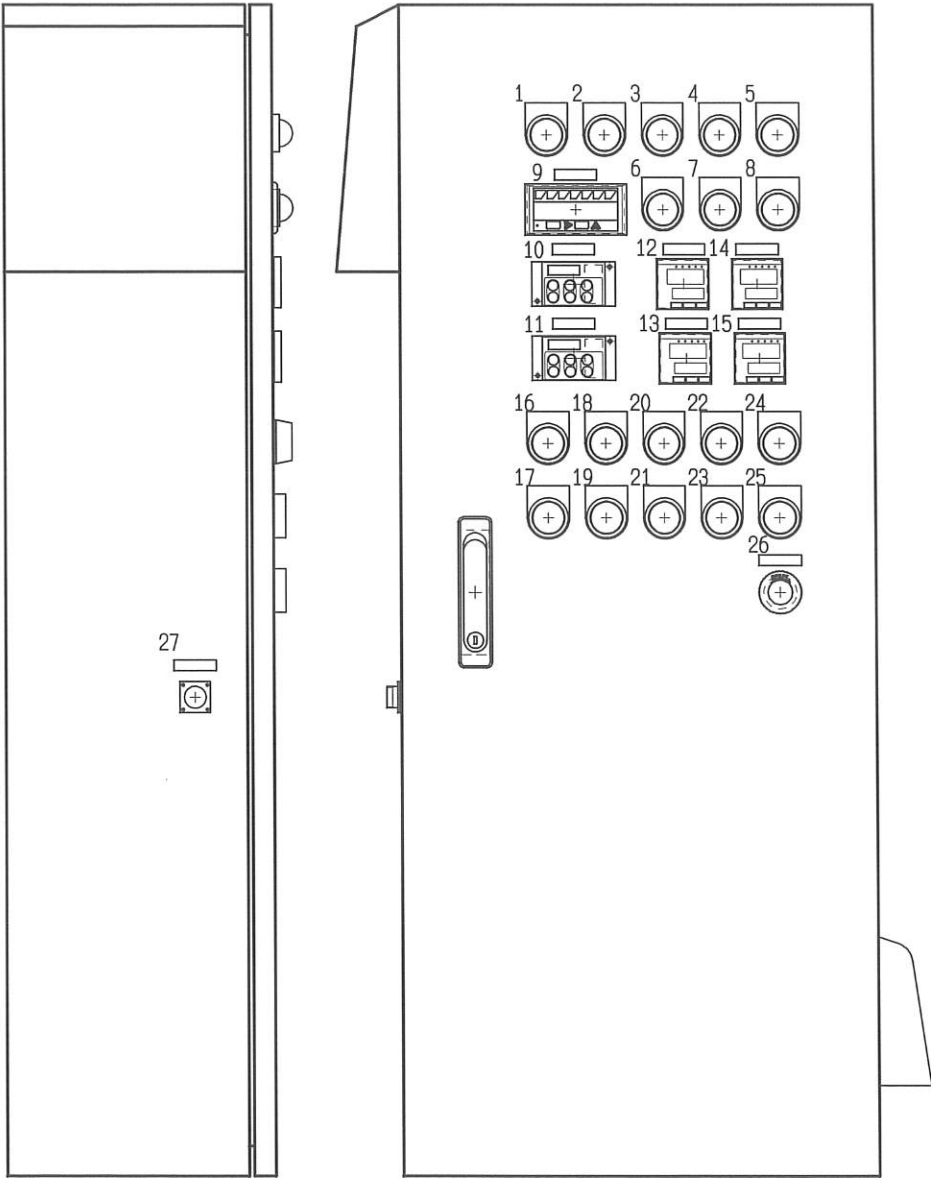
サン・プラント工業 株式会社

図番
No. 2-1-2

1. Mounting parts
- 1) Return the inlet arm to the home position and set the belt in place.
*Check the tension of the belt.
- 2) Set the covers in place.



Common to both OT-2031 and OT-2032 (this overall diagram of the machine shows OT-2032)		名称	テフロンケ'リルコンハ'キ-	縮尺	設計
		型式	Mounting parts		製図
			SM-TGC450-2000		検図
御中	年月日	サン・プラント工業 株式会社			図番 No. 3-1



- 1. Operating power When the plant's main power supply is turned on, the lamp lights.
- 2. Heater operation indicator lamp at bottom of exit
When the heater at the bottom of the exit turns ON, the lamp lights.
- 3. Heater operation indicator lamp at top of exit
When the heater at the top of the exit turns ON, the lamp lights.
- 4. Heater operation indicator lamp at bottom of inlet
When the heater at the bottom of the inlet turns ON, the lamp lights.
- 5. Heater operation indicator lamp at top of inlet
When the heater at the top of the inlet turns ON, the lamp lights.
- 6. Inverter error indicator lamp
- 7. High temperature warning indicator lamp
- 8. Low temperature warning indicator lamp
- 9. Pass time meter (baking time indicator)
- 10. Conveyor inverter setting panel
For information on settings and setting changes, see the inverter instruction manual.
- 11. Discharge conveyor inverter setting panel
For information on settings and setting changes, see the inverter instruction manual.
- 12. Temperature controller 4 Sets the temperature of the heater at the bottom of the exit.
- 13. Temperature controller 2 Sets the temperature of the heater at the bottom of the inlet.
- 14. Temperature controller 3 Sets the temperature of the heater at the top of the exit.
- 15. Temperature controller 1 Sets the temperature of the heater at the top of the inlet.
- 16. Discharge conveyor ON pushbutton switch
When this button is pressed, the lamp lights and the discharge conveyor starts.
- 17. Discharge conveyor OFF pushbutton switch
When this button is pressed, the lamp goes out and the discharge conveyor stops.
- 18. Bottom heater ON pushbutton switch
When this button is pressed, the lamp lights and the bottom heater starts.
- 19. Bottom heater OFF pushbutton switch
When this button is pressed, the lamp goes out and the bottom heater stops.
- 20. Top heater ON pushbutton switch
When this button is pressed, the lamp lights and the top heater starts.
- 21. Top heater OFF pushbutton switch
When this button is pressed, the lamp goes out and the top heater stops.
- 22. Conveyor ON pushbutton switch
When this button is pressed, the lamp lights and the conveyor starts.
- 23. Conveyor OFF pushbutton switch
When this button is pressed, the lamp goes out and the conveyor stops.
- 24. Warning buzzer
- 25. Buzzer reset
- 26. Emergency stop

				名称	テフロングリルコンベヤー	縮 尺	設 計		
					Names and functions of operating parts			製 図	
					型式			SM-TGC450-2000	検 図
		御 中		年 月 日		サン・プラント工業 株式会社		図 番 No. 3-2	

1. Checking the teflon grill conveyor before operations

1) Check the rotational direction of the conveyor.

When checking the rotational direction, check the front and rear of the conveyor belt.

When checking the rotational direction, make sure nothing is placed on top of the machine.

When checking the rotational direction, make sure nobody is working in front of or behind the conveyor.

2) Check the belt tension.

Adjust the belt tension by moving the belt to the left and right.

3) Check the chain tension.

Adjust the chain tension by moving the chain to the left and right.

2. Operating and adjusting the teflon grill conveyor

1) Start the conveyor.

Press the conveyor ON button on the control panel to start the conveyor.

2) Adjust the conveyor speed.

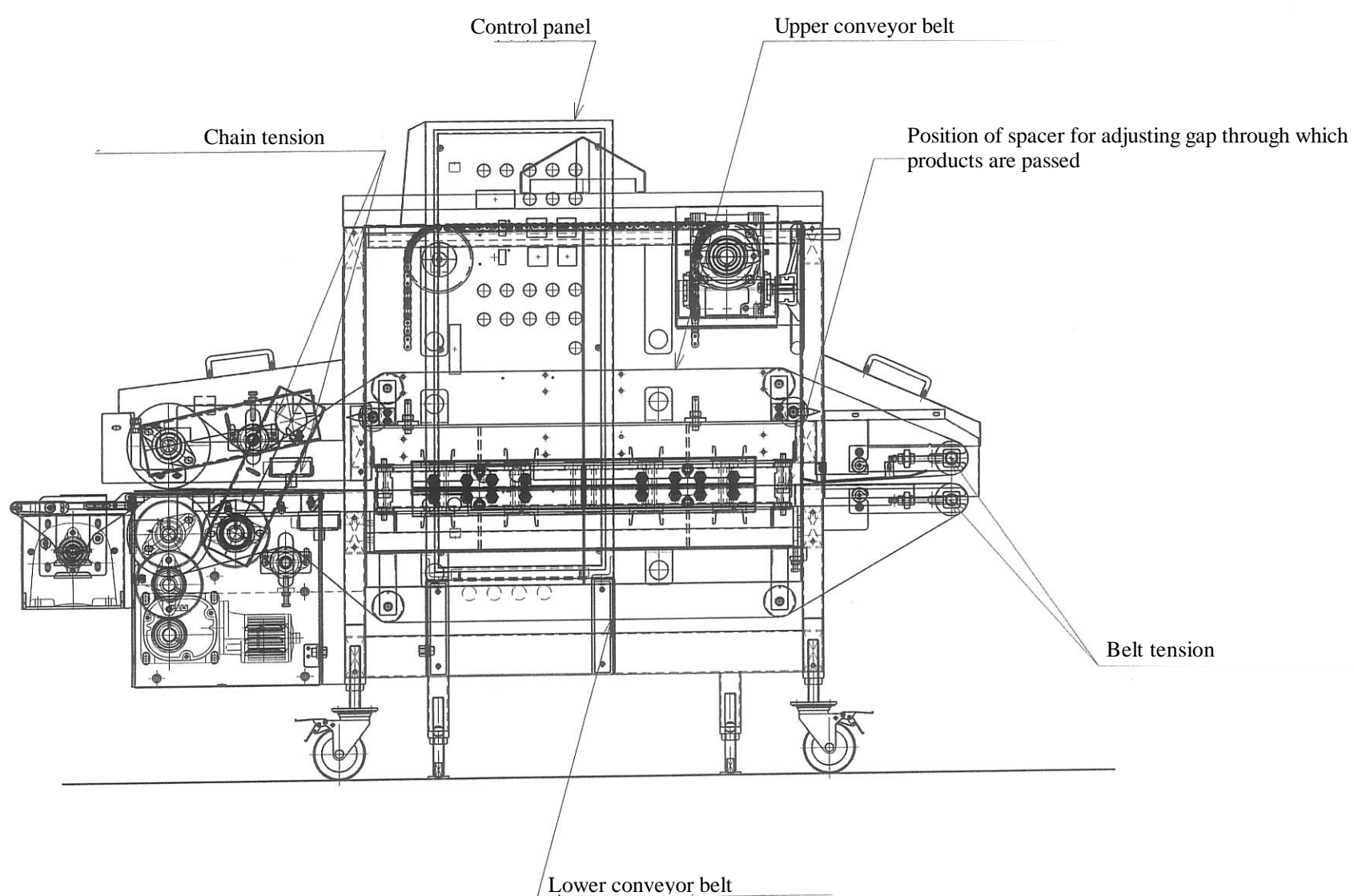
Adjust the speed using the touch panel on the conveyor control panel.

3) Press the heater ON button on the control panel to start heating.

Adjust the heating temperature using the temperature controller on the control panel.

4) Adjust the gap between the upper and lower conveyors to suit the size of the product. To do this, turn the lift handle to raise the upper conveyor and use the gap adjusting spacer to adjust the level to the desired gap.

*For information on how to adjust the inverter and temperature controller, see the separate instruction manual.



Common to both OT-2031 and OT-2032 (this overall diagram of the machine shows OT-2032)

名称
テフロングリルコンベヤー
Operating and adjusting the conveyor
型式
SM-TGC450-2000

縮尺

設計

製図

検図

図番

No. 3-3

御中

年 月 日

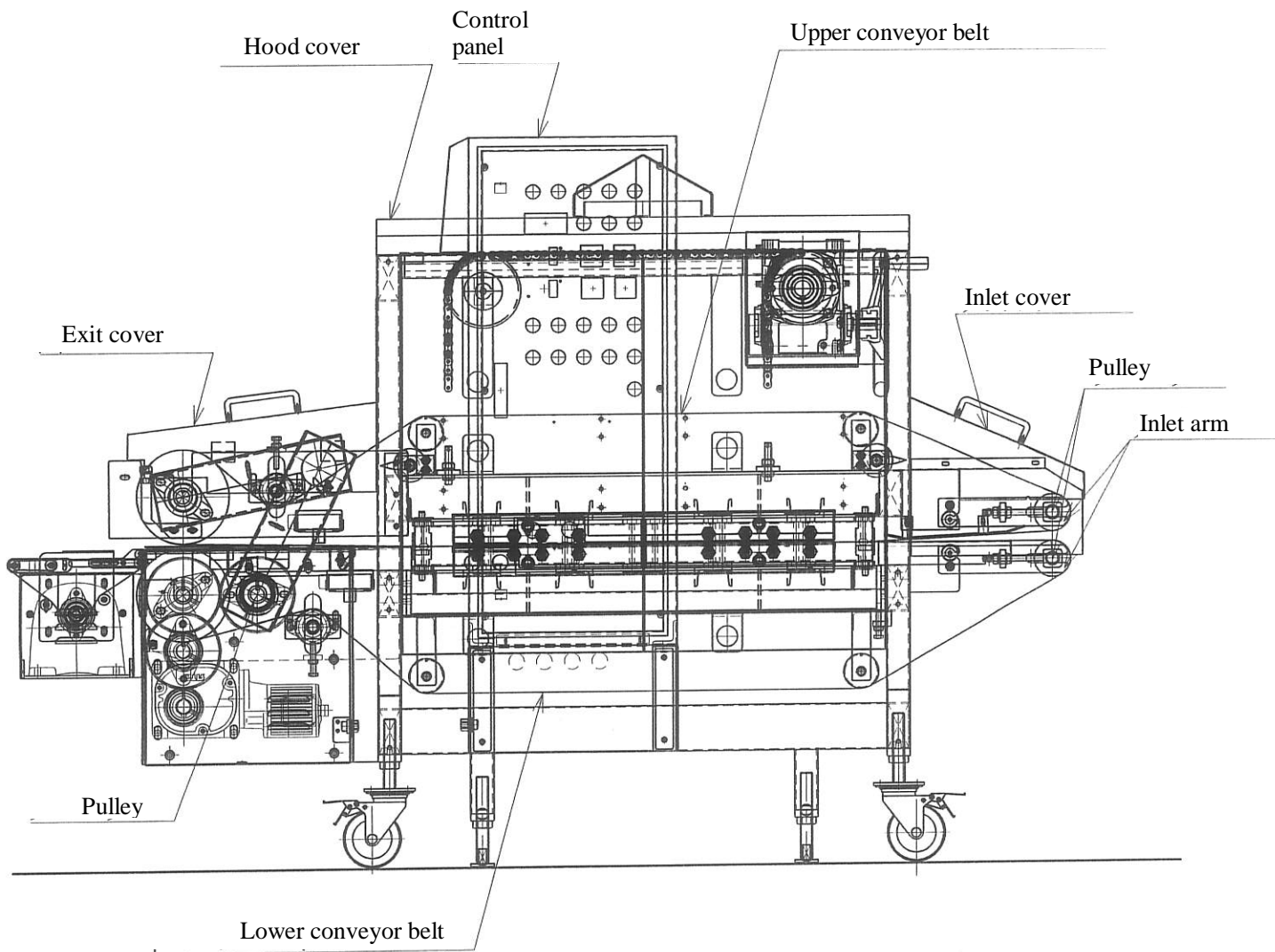
サン・プラント工業 株式会社

1. Disassembling and washing the teflon grill conveyor

- 1) Remove the inlet and exit covers.
- 2) Remove the hood cover.
- 3) Lay the inlet arm lift over on its side, loosen the belt and wash the entire conveyor.

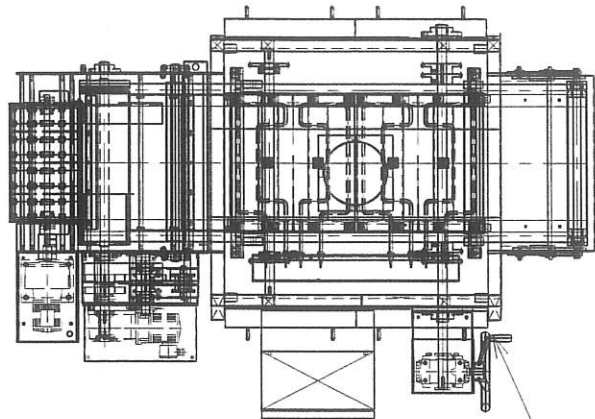
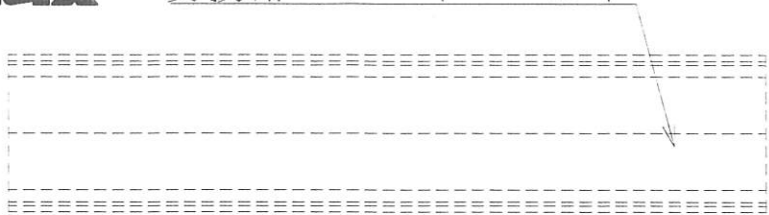
Notes:

- a) Make sure the machine has cooled sufficiently before removing the cover.
- b) Do not operate the conveyor while the belt is loosened.
- c) Be sure to stop the machine before disassembling and washing it.
If the machine is not stopped, you may become caught in the pulley or other parts.
- d) Wash the belt well to remove oil that has adhered to it.
If oil remains on the belt, the products being processed will burn when they are heated and will be difficult to bake.
- e) Remove product detritus and burned particles adhered to the front surface of the pulley.
They may cause the belt to slip.
- f) Remove product detritus and burned particles adhered to the front surface of the heater.
The heat from the heater will not be transferred so efficiently to the belt, causing products to be underbaked.
- g) Do not directly splash water onto the control panel.
- h) Wait until the heater's indicated temperature falls below 100 °C before stopping the conveyor.
Stopping the conveyor while it is still hot may cause damage to the belt.



Common to both OT-2031 and OT-2032 (this overall diagram of the machine		名称	テフロンク'リルコンベ'ヤー	縮 尺	設計		
			Disassembling and washing			製図	
shows OT-2032			型式			SM-TGC450-2000	検図
御中	年 月 日	サン・プラント工業 株式会社			図番		
					No.	3-4	

Replacement conveyor belt

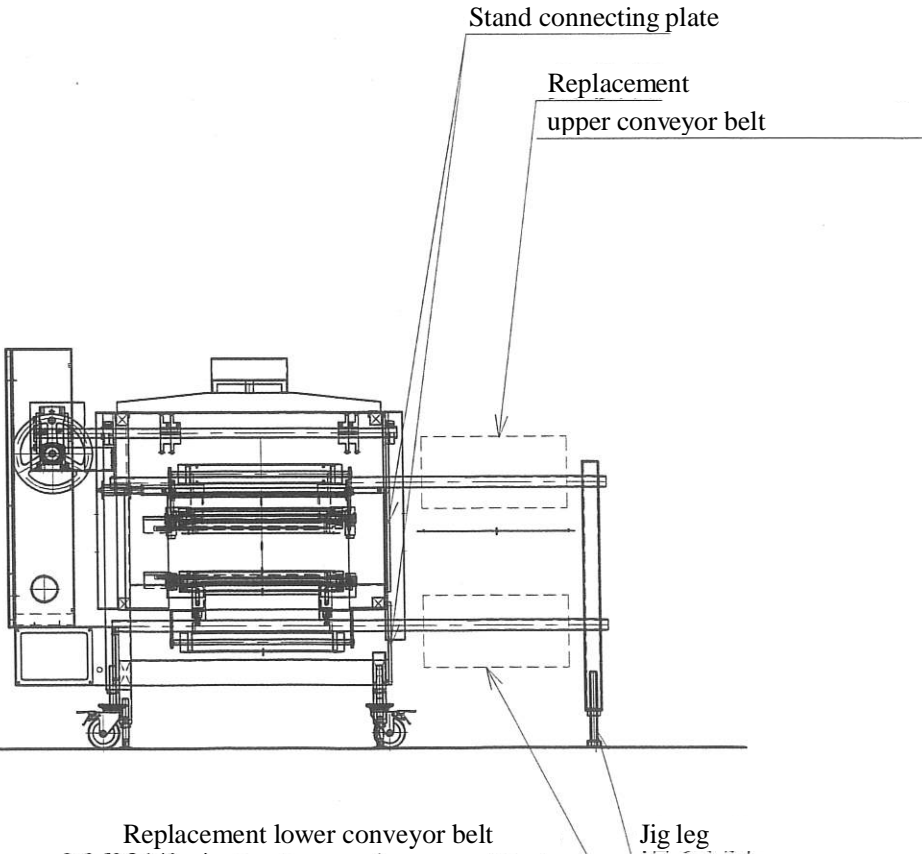
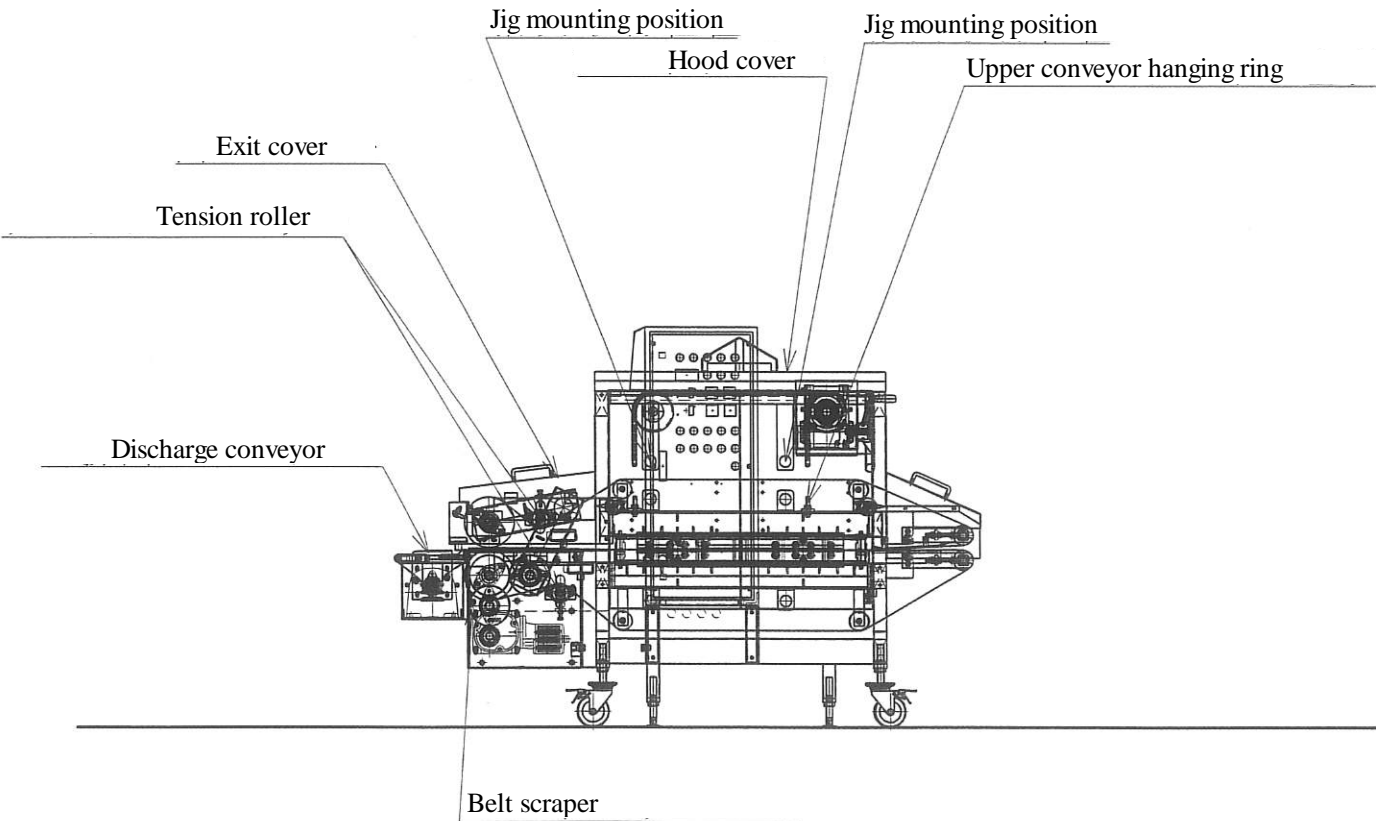


Lift handle

1. Removing and mounting the belt

- 1) After removing all covers, remove the discharge conveyor and discharge conveyor brackets.
- 2) Remove the belt scraper.
- 3) Using the lift handle, raise the conveyor to the prescribed position.
- 4) Set the jig at the prescribed position (see the diagram for the mounting position)
- 5) Place the replacement conveyor belt over the pipe of the jig.
- 6) Set the jig leg in place.
- 7) Remove the upper conveyor hanging ring from one side only (the rear side).
- 8) Remove the stand connecting plate (rear side).
- 9) Loosen the belt.
- 10) Remove the tension rollers.
- 11) While pulling out the belt from the rear side, mount the replacement belt by swapping it into the place of the old belt.

*To mount the parts, follow the same procedure in reverse.

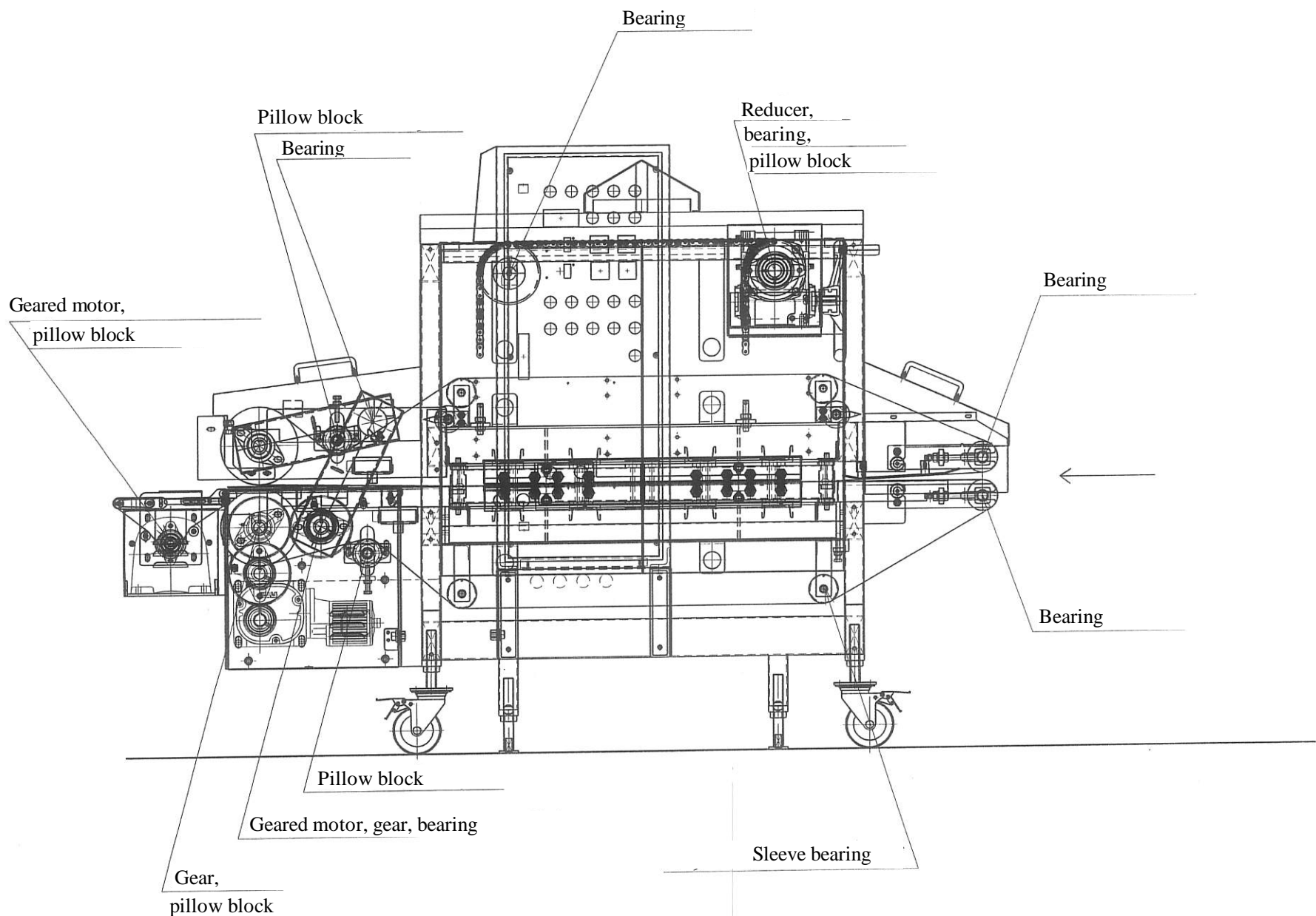


Common to both OT-2031 and OT-2032 (this overall diagram of the machine		名称 型式	テフロンケ'リルコンベ'ヤー	縮 尺	設計			
shows OT-2032)					Remove and mounting the belt		製図	
					SM-TGC450-2000		検図	
		御中	年 月 日	サン・プラント工業 株式会社		図番 No. 3-5		

1. Maintaining and inspecting the teflon grill conveyor

- 1) Inspection the teflon belt once a day for stretch and damage.
- 2) Inspect the geared motor once a day for abnormal noise during operations.
- 3) Inspect the drive chain once a week for stretch and damage.
- 4) Inspect the gears once a week for wear and to make sure they engage properly.
- 5) Inspect the bearings once a week for wear.
- 6) Replenish the grease in the pillow blocks once a month.
- 7) Replace the reducer oil once a year.

Note: Be sure to stop the machine before carrying out maintenance and inspection.



OT-2031, OT-2032 台共通 (本図機械全体図はOT-2032)		名称 型式	テフロンク'リルコンベ'ヤー	縮 尺	設計		
			Maintenance and inspection			製図	
			SM-TGC450-2000			検図	
御中	年 月 日	サン・プラント工業 株式会社			図番		
					No.	4-1-2	

Parts list

No. 1/2

SM-TGC450-2000, BC450-300, NC450-300

Note: The quantity for TGC is the quantity per conveyor.

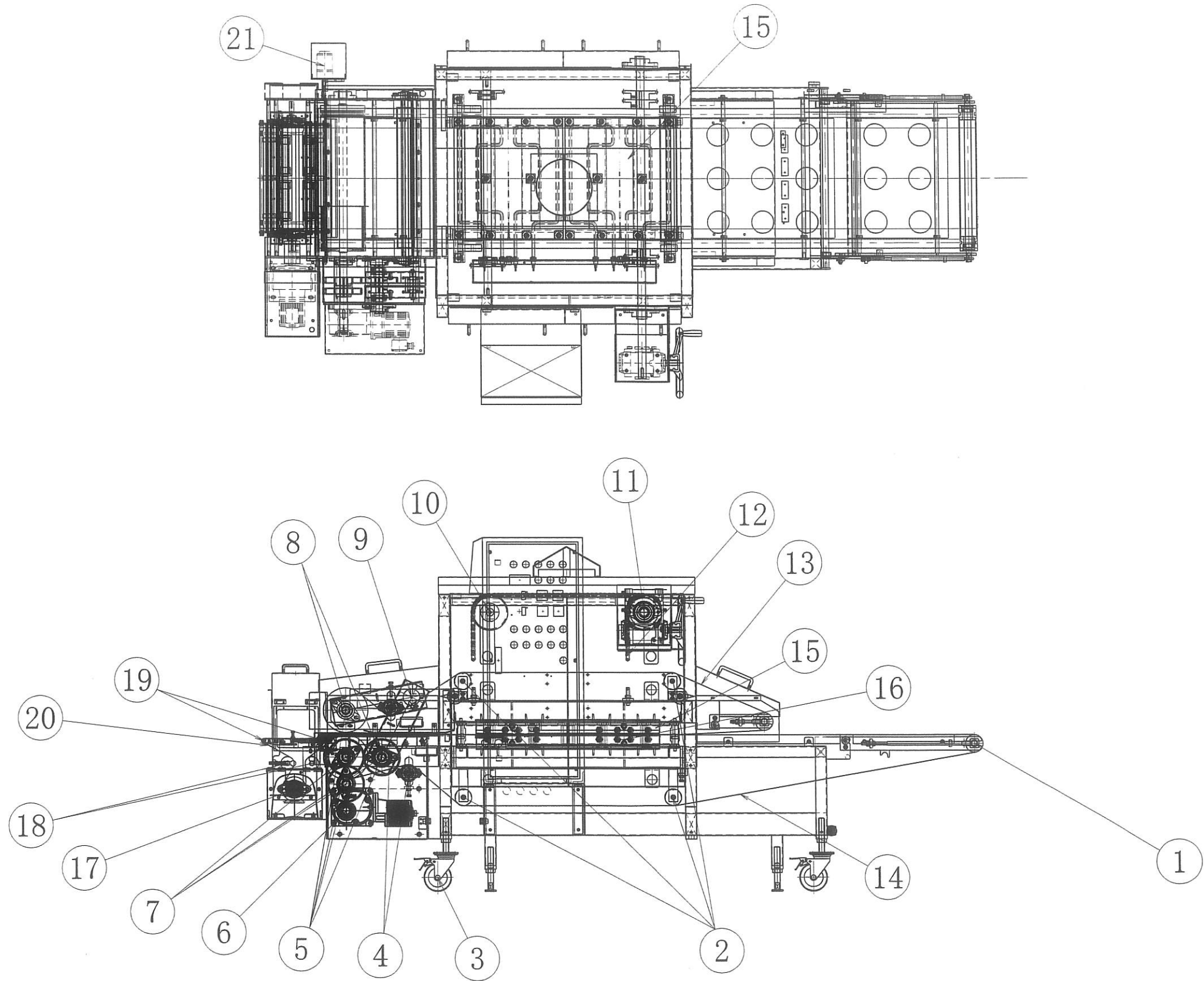
Sun Plant Industry Co., Ltd.

No.	Category	Part name	Standard/model	Material	Qty	Remarks
1	TGC	Driven pulley	Ø79	SUS	2	
	TGC	Bearing	6205ZZ	SUS	4	NSK
2	TGC	Sleeve bearing	R-BRF1510		8	
3	TGC	Castor	315S-UB125		4	Hammer
4	TGC	Pillow block	UCSFL204SS	SUS	4	NBR
5	TGC	Pillow block	UCSFL206SS	SUS	8	NBR
6	TGC	Geared motor	FSM-30-450-T010A		1	Nissei
	TGC	Gear	M2×40T	S45C	1	
7	TGC	Drive pulley	φ200	SUS・コ' A	1	
	TGC	Gear	M2×80T	S45C	3	
8	TGC	Drive pulley	φ200	SUS・コ' A	1	
	TGC	Sprocket	#40×21N	S45C	2	
	TGC	Bearing	6006ZZ	SUS	4	
9	TGC	2-row sprocket	#40×21N, #40×21N	S45C	1	
	TGC	Bearing	6005ZZ	SUS	2	
10	TGC	Sprocket	#60×25N	S45C	2	
	TGC	Bearing	6207ZZ	SUS	2	
11	TGC	Sprocket	#60×25N	S45C	4	
	TGC	2-stage worm gear reducer	N-PHF-22 1/60		1	Bellpony
	TGC	Pillow block	UCSFL207SS	SUS	2	NBR
	TGC	Lift handle	RP315-SUS		1	
12	TGC	Strong chain	#60	SUS	3.5m	
13	TGC	Teflon belt	F910		1	Takesue
			625W×6170LE			
			Red surface			
			With crosspiece to prevent meandering			
14	TGC	Teflon belt	F910		3	Takesue
		1 in OT-2031	625W×4330LE			
		1 in OT-2032	Red surface			
			With crosspiece to prevent meandering			
15	TGC	Aluminium cast heater			4	Shinnichi Electric Heater
16	TGC	CA type sensor	Z-30973 with mounting bracket		4	Shinnichi Electric Heater
17	BC	Geared motor	G3LM-32-900-T010		1	Nissei
	BC	Pillow block	UCSFL206SS	SUS	2	
18	BC	Bearing	6204ZZ	SUS	16	
19	BC	Sleeve bearing	R-BRF1008		4	

No. 2/2

サンフロントエヌ 株式会社

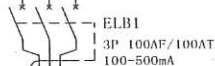
[illegible]



		名称 型式	テフロンケ'リルコンハ'ヤー、ハ'ルトコンハ'ヤー	縮 尺 1 / 20	設計	油 野
			Parts list		製図	
			SM-TGC450-2000(OT-2031) SM-BC450-300(CB-2142)		検図	
		御中	2007 年 8 月 30 日	サン・プラント工業 株式会社		図番 No. 5-2-1

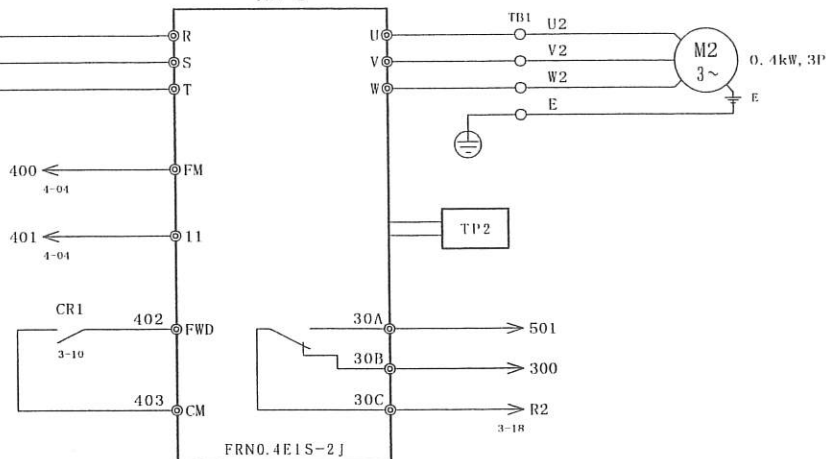
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3φ, AC200V, 50/60Hz



R0 S0 T0

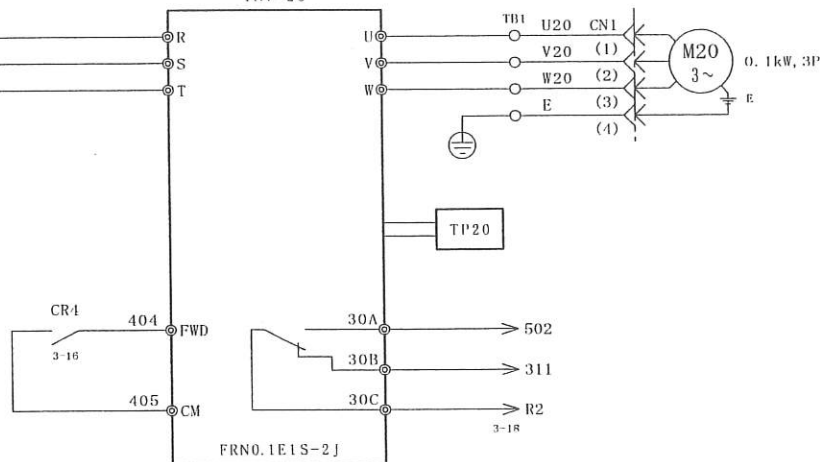
INV-2



コンベヤー
CONVEYOR
0.4 kW

a) 6-04
b) 3-09

INV-20

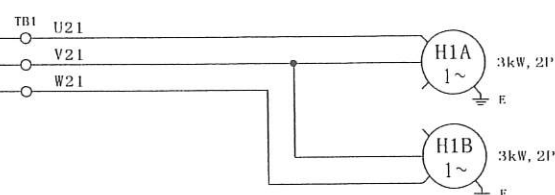


排出コンベヤー
DISCHARGE CONVEYOR
0.1 kW

a) 6-05
b) 3-15

MS21

4-08



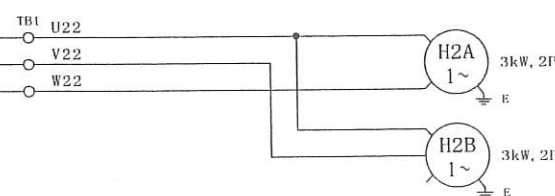
INLET LOWER HEATER

ヒーター 1 A
HEATER 1A
1φ, 3 kW

ヒーター 1 B
HEATER 1B
1φ, 3 kW

MS22

4-11



EXIT LOWER HEATER

ヒーター 2 A
HEATER 2A
1φ, 3 kW

ヒーター 2 B
HEATER 2B
1φ, 3 kW

R0 S0 T0

DRAWING NAME

INVERTER

DRAWING No.

E441000

MACHINE NAME

TGC450-2000

BOX No.

VBFO036

Sun Plant Industry Co., Ltd.

DATE

2007/01/16

SHEET No.

1/7

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RO SO TO
RO SO TO

MS23

TB1

U23

V23

W23

5-05

H3A
1~

3kW, 2P

E

H3B
1~

3kW, 2P

E

INLET UPPER HEATER

ヒーター 3 A

HEATER 3A

1 φ、3 kW

ヒーター 3 B

HEATER 3B

1 φ、3 kW

MS24

TB1

U24

V24

W24

5-11

H4A
1~

3kW, 2P

E

H4B
1~

3kW, 2P

E

EXIT UPPER HEATER

ヒーター 4 A

HEATER 4A

1 φ、3 kW

ヒーター 4 B

HEATER 4B

1 φ、3 kW



DRAWING NAME

INVERTER

DRAWING No.

E441000

MACHINE NAME

TGC450-2000

BOX No.

VBFO036

DATE

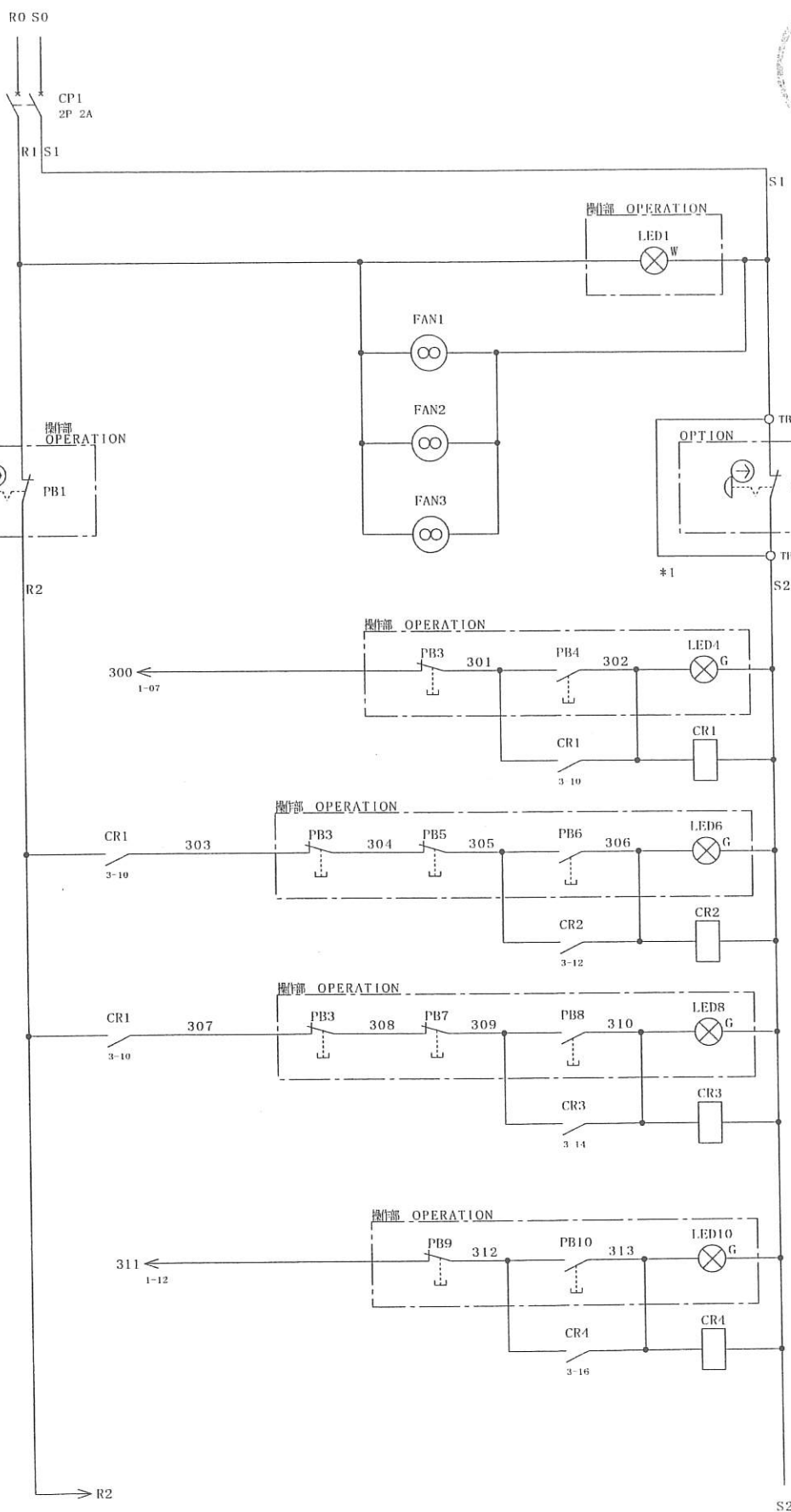
2007/01/16

SHEET No.

2/7

Sun Plant Industry Co., Ltd.

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操作電源
CONTROL POWER

非常停止
EMERGENCY STOP

*1: 出荷時短絡
SHORT-CIRCUIT

コンベヤー
CONVEYOR

上ヒーター
UPPER HEATER

下ヒーター
UNDER HEATER

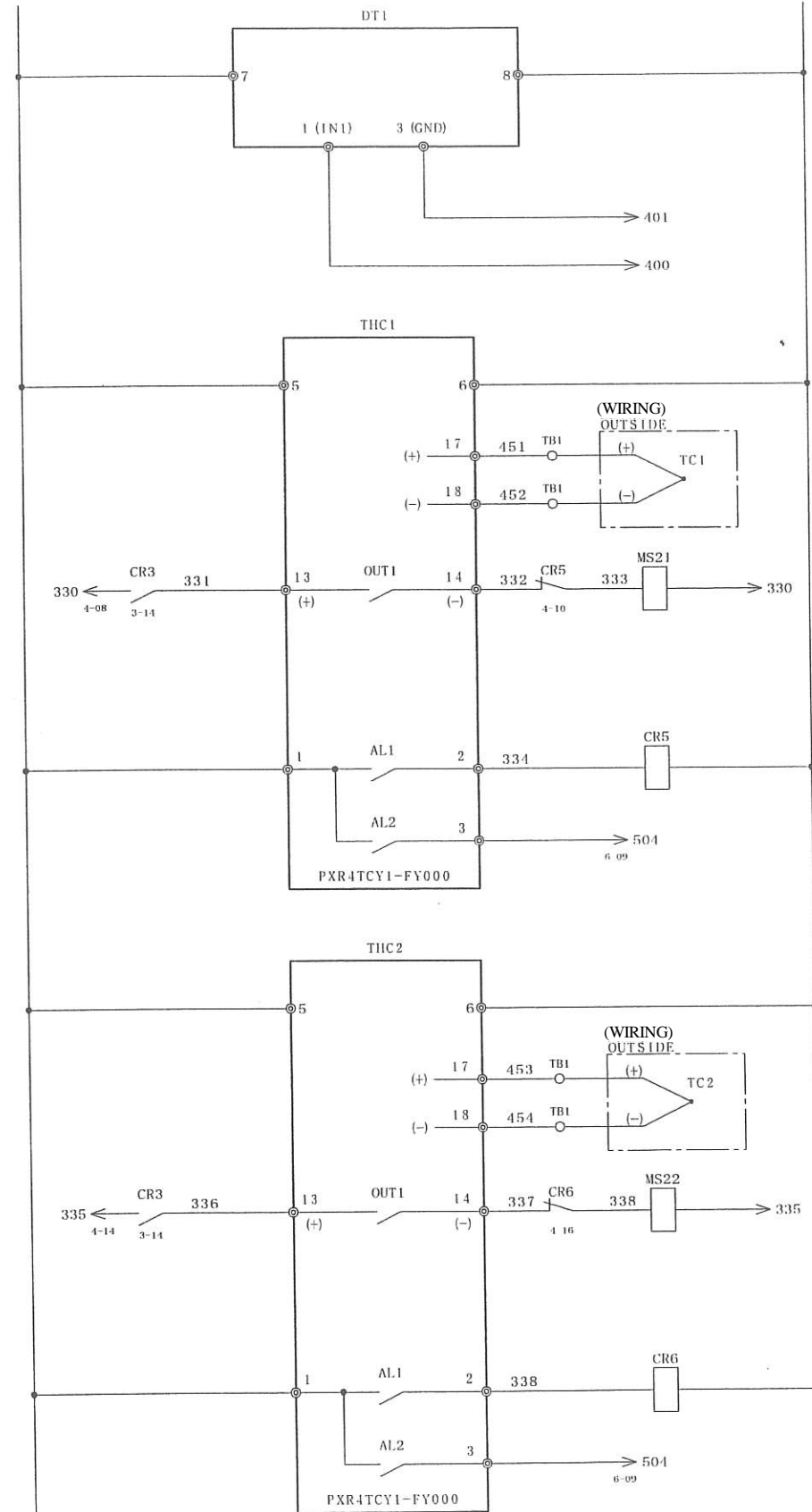
排出コンベヤー
DISCHARGE CONVEYOR

DRAWING NAME		DRAWING No.	
OPERATION		E441000	
MACHINE NAME		BOX No.	
TGC450-2000		VBF0036	
Sun Plant Industry Co., Ltd.		DATE	SHEET No.
		2007/01/16	3/7

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R2
R2

S2
S2



通過時間表示
CONVEYOR PASS TIME

a) 1-06
b) 1-06

温度調節器 1 (入口下部)
TEMPERATURE CONTROLLER 1
(INLET LOWER)
熱電対 1
K-THERMO COUPLE 1

ヒーター 1 入
HEATER 1 ON

a) 4-08
b) 4-14

高温警報
HIGH TEMPERATURE ALARM
a) 6-06 7-03
b) 1-08

低温警報
LOW TEMPERATURE ALARM

温度調節器 2 (出口下部)
TEMPERATURE CONTROLLER 2

熱電対 2
K-THERMO COUPLE 2

ヒーター 2 入
HEATER 2 ON

a) 4-14
b) 4-16

高温警報
HIGH TEMPERATURE ALARM
a) 6-07 7-04
b) 4-14

低温警報
LOW TEMPERATURE ALARM

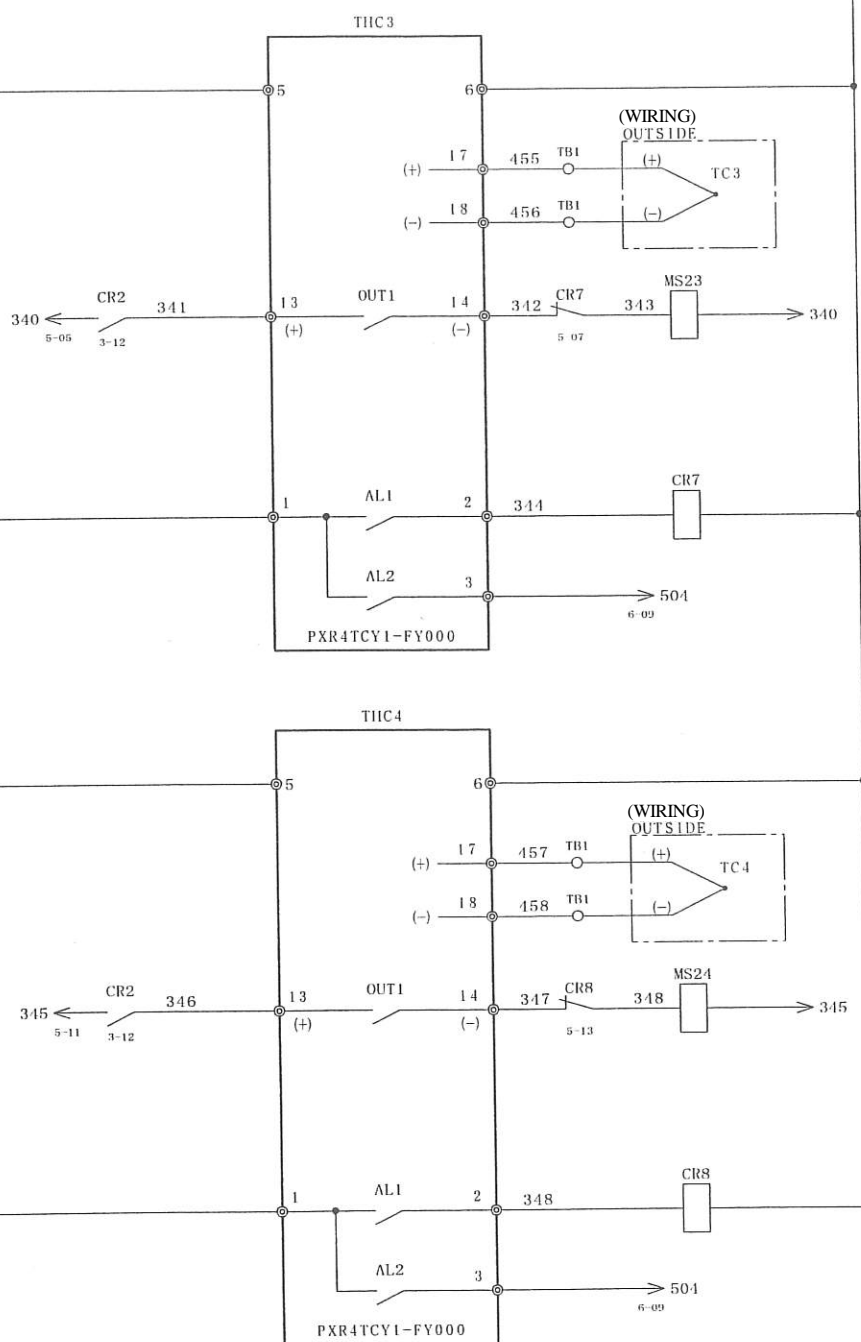


DRAWING NAME
TEMPERATURE CONTROLLER
MACHINE NAME
TGC450-2000
Sun Plant Industry Co., Ltd.

DRAWING No.
E441000
BOX No.
VBF0036
DATE
2007/01/16
SHEET No.
4/7

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R2
R2
S2
S2



温度調節器 3 (入口上部)
TEMPERATURE CONTROLLER 3
(INLET UPPER)

熱電対 3
K-THERMO COUPLE 3

ヒーター 3 入
HEATER 3 ON

高温警報
HIGH TEMPERATURE ALARM

低温警報
LOW TEMPERATURE ALARM

温度調節器 4 (出口上部)
TEMPERATURE CONTROLLER 4
(EXIT UPPER)

熱電対 4
K-THERMO COUPLE 4

ヒーター 4 入
HEATER 4 ON

高温警報
HIGH TEMPERATURE ALARM

低温警報
LOW TEMPERATURE ALARM

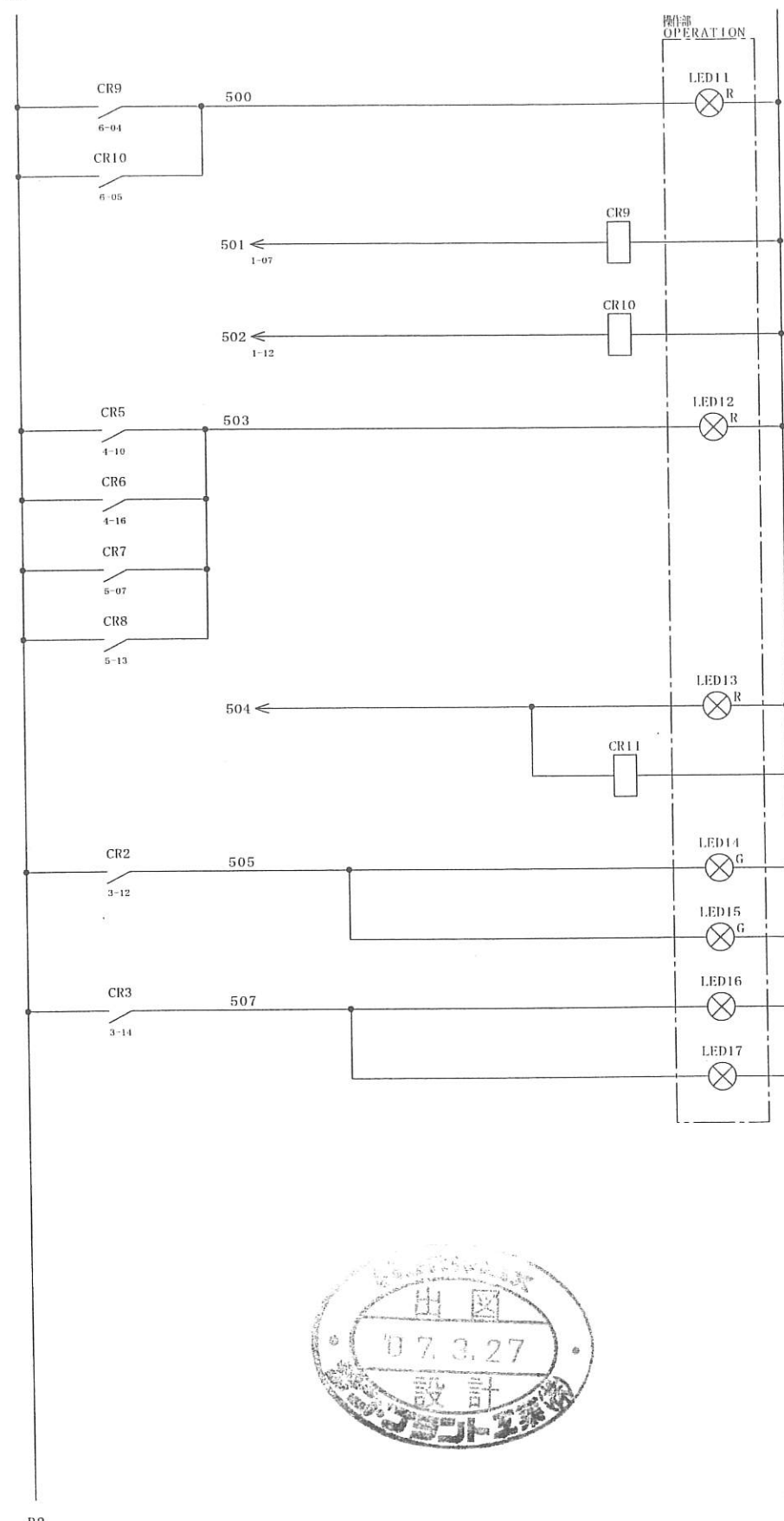


DRAWING NAME		DRAWING No.	
TEMPERATURE CONTROLLER		E441000	
MACHINE NAME		BOX No.	
TGC450-2000		VBF0036	
Sun Plant Industry Co., Ltd.		DATE	SHEET No.
		2007/01/16	5/7

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R2
R2

S2
S2



インバータ異常
INVERTER ALARM

コンベヤーインバータ異常
CONVEYOR INVERTER ALARM
a 6 03 7 06
b

排出コンベヤーインバータ異常
DISCHARGE CONVEYOR
INVERTER ALARM
a 6 03 7 07
b

高温警報
HIGH TEMPERATURE ALARM

低温警報

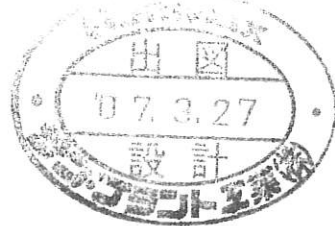
LOW TEMPERATURE ALARM
a 4 10 4 17 5 07 5 11
b
a 7 07
b

入口上部ヒーター 入
UPPER HEATER ON (INLET)

出口上部ヒーター 入
UPPER HEATER ON (EXIT)

入口下部ヒーター 入
UNDER HEATER ON (INLET)

出口下部ヒーター 入
UNDER HEATER ON (EXIT)



DRAWING NAME		DRAWING No.	
OPERATION LAMP		E441000	
MACHINE NAME		BOX No.	
TGC450-2000		VBF0036	
Sun Plant Industry Co., Ltd.		DATE	SHEET No.
		2007/01/16	6/7

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R2

S2

CR5

4-10

900



901

CR12

ブザーリセット
BUZZER RESET

7-01 7-01

CR6

4-16

CR12

7-03

CR7

5-07

CR12

7-03

902



警報ブザー
ALARM BUZZER

CR8

5-13

CR9

6-04

CR10

6-05

CR11

6-10



R2

S2

		DRAWING NAME	ALARM BUZZER	DRAWING No.	E441000
		MACHINE NAME	TGC450-2000	BOX No.	VBF0036
		Sun Plant Industry Co., Ltd.	DATE	2007/01/16	SHEET No. 7/7

SM-TGC450-2000 TEFLON GRILL CONVEYOR

CONTROL BOX : VBF0036

Table of electrical parts

1/1

	Part name	Model	Manufacturer	Quantity	Equipment No.
1	Earth leakage breaker	EG103AC(100AT _r , switching)	Fuji Electric	1	ELB1
2	Earth leakage breaker terminal cover	BZ6TS10C3	"	1	
3	Circuit protector	CP32FM(2A)	"	1	CP1
4	Circuit protector terminal cover	CP-T4	"	4	
5	Inverter	FRN0.4E1S-2J	"	1	INV1
6	Inverter	FRN0.1E1S-2J	"	1	INV20
7	Temperature controller	PXR4TCY1-FY000	"	4	THC1-4
8	Temperature controller terminal cover	ZZPPXR1-A230	"	4	
9	Indicator light	DR30D0L-M3W	"	1	LED1
10	Illuminated pushbutton	AR30G3L-10M3G	"	4	PB.LED
11	Pushbutton	AR30F0R-01R	"	3	PB5.7.9
12	Pushbutton	AR30F0R-03R	"	1	PB3
13	Indicator light	DR30D0L-M3G	"	4	LED14-17
14	Indicator light	DR30D0L-M3R	"	3	LED11-13
15	Buzzer	DR30B5-MB	"	1	BZ1
16	Pushbutton	AR30F0R-10Y	"	1	PB30
17	Relay	RJ2S-CL-D24	IDEC	4	CR13-16
18	Relay	RJ2S-CL-A200	"	5	CR4.9-12
19	Relay	RU4S-C-A200	"	7	CR1-3.5-8
20	Socket	SY4S-05DF	"	7	
21	Socket	SJ2S-07L	"	5	
22	Holding bracket	SFA-502PN20	"	7	
23	LAN cable	LD-CT/LG2	Elecom	2	
24	Soft cover	Y92A-48F1	Omron	4	
25	Solid state relay	G3PB-245B-3N-VD	"	4	MS21-24
26	Pass time meter	HJ35A1	Henix	1	DT1
27	Pass time meter terminal cover	TC35	"	1	
28	Ventilating fan	T-MU1238A-11-GP	Oriental	3	FAN1-3
29	Fan guard	FG12D	"	3	
30	Square louver	SLP-1	Nito	1	
31	Louver with hood	OLP-3F	"	1	
32	Metal connector	NJW204RF	Nanabosi	1	
33	Metal connector cap	NJW20RCa-L70	"	1	