

Trouble Shooting

1 Door sensor alarm

Problems	Troubleshooting
<ul style="list-style-type: none"> -To open the safety cover 	<ul style="list-style-type: none"> -To put the safety cover on the right position and check the monitor if the color is to be changed in white.

● Servo drive alarm

Problems	Troubleshooting
<ul style="list-style-type: none"> - A red light is on in the servo drive of the control box.) - A manual advance is not operated. 	<ul style="list-style-type: none"> - Check the alarm on the monitor. - To press the reset button. (Don't press the reset button during operation). - Check the forming and the sealing die are in the down position and switch off then on again. -Check all operating process are completely done If not, finish the remaining process in manual and make a manual advance again.

● PLC error

Trouble Shooting

Problems	Troubleshooting
<ul style="list-style-type: none"> - To show a different screen not as usual. 	<ul style="list-style-type: none"> - To request A/S.

● **Temperature alarm**

Problems	Troubleshooting
<ul style="list-style-type: none"> - Temperature is not controlled to show 15°C~20°C over than setting temperature. -The forming and the sealing plates are not hot. 	<ul style="list-style-type: none"> - Change the temperature sensor. - Check the circuit breaker in the control box. → Check the heater and replace it if necessary.

Forming/Sealing lifting error

Problems	Troubleshooting
<ul style="list-style-type: none"> - The forming and the sealing lifting are in the top position. - They don't move to the bottom position by manual. 	<ul style="list-style-type: none"> - To press the lifting down button by manual. - Heating forming/vacuum sealing are in the process. So, to finish the process by manual and to put down them by pressing the lifting down button.

Trouble Shooting

Emergency stops

Problems	Troubleshooting
<ul style="list-style-type: none"> - All process is stopped and it won't be operated by manual. 	<ul style="list-style-type: none"> - Put the emergency button to the right position. - Check every process carefully in case of the process is done.

Vacuum error

Problems	Troubleshooting
<ul style="list-style-type: none"> - Not to form a vacuum in the sealing die. - Not to show a vacuum status in the monitor. 	<ul style="list-style-type: none"> - Check O-ring inside of the sealing die and check the divider gap at the bottom of the sealing die and confirm if they are in the right position. - To inspect to rupture the vacuum hose. - To press by manual Release → Top vacuum → Bottom vacuum buttons to check a vacuum leakage and press them vice versa to OFF. - Replace O-ring according to priority.

Not to advance

Problems	Troubleshooting
<ul style="list-style-type: none"> - A rotary knife is to be overloaded. 	<ul style="list-style-type: none"> - To rotate the knife axis by hands and put the knife in the original position.

Trouble Shooting

2. Not completely closed

Problems	Troubleshooting
To be clogged by film scrap in the cutting section	Check and clean
Defect or wrong connection of a switch	Make a correct connection and replace if necessary.
Not tighten or defect of an air hose	Check and tighten or replace
Not to be switched of air cylinder valve or defect	Check the valve operation

The brake of the upper film doesn't work properly or slippery.

Problems	Troubleshooting
To be wore out the brake pad or foreign substance is stuck.	Replace a brake pad or remove a foreign substance.

Operating factors

Shortage of cooling water

Problems	Troubleshooting
The cooling water not connected, or the valve is locked.	Connect the cooling water line, or open the valve.
Water pressure is too low.	Increase water pressure. The cross section of the water supply line is too small.
Compressed air not connected or not be opened	Connect compressed air or open the valve.

Trouble Shooting

the valve.	
Compressed air pressure of the maintenance is too low. → Water supply valve doesn't work properly.	Open the valve and increase the pressure. The cross section of the supply line is too small
The supply line is contorted.	Check
Water supply valve is out of order.	Check and change it with new one.

Short supply of air pressure

Problems	Troubleshooting
Compressed air supply is not enough.	Open the valve.
The line cross section is too small.	Increase the cross section.
The supply line is contorted.	Remove contortion.
Pressure regulator is set too low.	Increase the pressure regulator. (Note the allowable maximum pressure regulator.)

Air pressure shortage

Problems	Troubleshooting
Compressed air not to be supplied.	Operate the air compressor.
Airline to be tangled.	Untangle the air line.

Trouble Shooting

Air pressure regulator is set at lower level.	Level up the air pressure regulator. (Check the allowable maximum pressure level.)
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Motor overload

Problems	Troubleshooting
Thermal overload relay to be operated.	Reset the relay several hours later.
One phase among three phases to be lost.	Check to connect three phase power supply.
Motor not to be operated or defected.	Check
Overload relay to be set at lower level.	Reset overload relay properly.

Grease shortage lifting dev. Lubrication

Problems	Troubleshooting
Short supply of grease on the lifting device.	Supply grease.

Heaters are switched off

Problems	Troubleshooting
Heaters are automatically ON and Off using a time switch.	Machine operates again after time being passed and the temperature is on steady state.

Test Function

Trouble Shooting

Safety circuit fault

Problems	Troubleshooting
No power supply for 24v relay or too lower power supply.	Check the power supply, or DC 24v for relay
Faulty relay	Check and replace it with new one.
One relay of safety relays has a faulty.	Check and replace it with new one.

Filling

Bulged product

Problems	Troubleshooting
Product to be misplaced or slippery.	Put product in right position
Product to be disclosure over film level.	Put product in right position

No product

Problems	Troubleshooting
No products in the forming tray	Check
Cable defect	Check

Product is not complete

Problems	Troubleshooting
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Trouble Shooting

Poor products to be packed	Check and eliminate poor products
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Film discharge

Trim removal unit is full

Problems	Troubleshooting
Film scrape is full in the trim removal unit.	Take out film scrape from the trim removal unit.

Edge trim tear

Problems	Troubleshooting
Control cam is wrong set.	Make control cam in right position
Defect of limit switch.	Check the limit switch.
Spring tension is set too high.	Release spring tension.

Film infeed Error

The first stage of the lower web unwind is wrong set.

Problems	Troubleshooting
Swing arm is not in the original position.	Check
Swing arm doesn't operate.	Check
Limit switch is abnormally set or defective.	Check

Trouble Shooting

Cable defect.	Check
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Temperature

Temperature too high

Problems	Troubleshooting
Setting value to be changed and let temperature down. Temperature sensor open.	Wait until temperature down. Change temperature sensor.

Temperature too low

Problems	Troubleshooting
Temperature not to be reached to setting value. One of heaters is short. Poor temperature sensor. Poor contactor connection.	Wait until temperature is reached to the setting value. Change a poor heater. Change a temperature sensor. Check contactor and tighten the connection screw.
Cycle output is too high.	Slightly increase a temperature.
Heater get too cold.	Check heating line.
Circuit breake is on in a heating cable.	Check a heating cable and set circuit breaker in the original position.
Contactor defect.	Replace

Trouble Shooting

Forming die lifting system

No opening movement detected

Problems	Troubleshooting
Compressed air connected to cylinder is too low.	Check
Die close signal/Cylinder switch is wrong set or defective.	Resetting or replace.
Cylinder is leak.	Replace a gasket or a cylinder.

Die lifting system

Does not close completely

Problems	Troubleshooting
To be caught by a part or other foreign material.	Remove a part or foreign material.
Die close signal/Cylinder switch is wrong set or defective.	Reset or replace

No opening movement detected

Problems	Troubleshooting
Compressed air connected to cylinder is too low.	Check

Trouble Shooting

Die close signal/Cylinder switch is wrong set or defective.	Reset or replace.
Leak of cylinder.	Replace a gasket or cylinder.

Sealing station

Vacuum setting value is not reached

Problems	Troubleshooting
Vacuum setting value is set too low.	Check and reset.
Worn or tear gasket.	Check and replace.
O-ring on the upper die is worn out.	Check and replace.
Lip seal connected to the bottom die is worn out.	Check and replace.
Vacuum hose is loosening or leaked.	Tighten or replace it.
Vacuum pump to be leaked.	Check and review the vacuum pump manual.
Vacuum line between a die and pressure transducer is blocked, leaked or loosen.	Check and replace it.
Pressure transducer is defective.	Replace it.

Trouble Shooting**Sealing pressure faulty**

Problems	Troubleshooting
Sealing diaphragm is leaked.	Replace it.
Solenoid valve is defective.	Replace it.
Sealing time is inaccurately set.	Reset sealing time correctly.

Trouble Shooting

Sealing station vacuum test

Die chamber seems to be leaked.

Problems	Troubleshooting
In case of vacuum system is leaked.	Check the following.
	-Vacuum hose
	-Die
	-Die sealing
	-Sealing ring
	-Hose connection
	-Main vacuum valve
	-Sealing diaphragm

Sealing diaphragm shows leaking

Problems	Troubleshooting
Sealing diaphragm is leak	Replace a sealing diaphragm.
Sealing diaphragm pressure is set too high.	For test, set it 2 bars.

Everything ok

Trouble Shooting

Problems	Troubleshooting
Vacuum test completely to be succeeded.	Keep it at present condition.
To keep vacuum leak protection system.	Keep it at present condition.

Vacuum setting value not to be reached

Problems	Troubleshooting
In case of sealing gasket is worn out.	Replace
O-ring is worn out.	Replace
Lip seal in the bottom die connection is worn out.	Replace
Vacuum hose is loosening or leaked.	Tighten or replace it.
Vacuum pump is leaked.	Check in accordance with vacuum pump manual.
Vacuum line between a die and a pressure transducer is blocked/leaked or loosen.	Check and take a countermeasure.
Defect of pressure transducer	Replace

Trouble Shooting

Forming station

Forming faulty

Problems	Troubleshooting
Film has a hole	Check
Die to be leaked.	Check a sealing and a line solenoid valve.
Gasket to be worn out.	Replace
Die height is low.	Adjust a die height.

Safety guard/side plates

Forming die safety guard

Problems	Troubleshooting
Safety guard is removed or located badly.	Put the safety guard on the original position.
Defect of a magnetic proximity switch.	Replace
Magnet on the safety guard is disappeared.	Check and replenish.
Cable on a terminal strip is loosen or, cable is disconnected.	Check and connect.

Forming die safety guard

Lift and put into place again

Problems	Troubleshooting
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Trouble Shooting

Safety guard is removed.	Put the safety guard on the original position.
Defect of a magnetic proximity switch.	Replace

Sealing die safety guard

Problems	Troubleshooting
Safety guard is removed or located badly.	Put the safety guard on the original position.
Defect of a magnetic proximity switch.	Replace.
Magnet on the safety quad is disappeared.	Check and replenish
Cable on a terminal strip is loosen or, cable is disconnected.	Check and connect.

Sealing die safety guard

Lift the safety guard and put it into the original position.

Problems	Troubleshooting
The safety guard is off from the original position.	Take out the safety guard and put it again.
Defect of a magnetic proximity switch.	Replace.

Film advance

Trouble Shooting

Film moves too slowly.

Problems	Troubleshooting
<p>M/C Drive</p> <ul style="list-style-type: none"> - Rotary shaft encoder doesn't transfer impulse. - Clamping rotary encoder shaft ↔ Drive shaft to be loosened. 	<p>KR400 series has encoder on the servo motor itself.</p> <ul style="list-style-type: none"> - Check rotary shaft encoder. See test for advance drive. - Tighten clamping.
<ul style="list-style-type: none"> - Analogue/Digital transducer is faulty. - Apparatus and servo amplifier are not to be connected. Plug to be loosened and wire is burst. 	<ul style="list-style-type: none"> - Replace a positioning module. - Check and change cable if necessary. - Check and take a proper countermeasure.
<p>Drive is overloaded.</p> <ul style="list-style-type: none"> - Edge trim is shown on the chain - Chain is torn out. - Motor or bearing on the gear apparatus is damaged. - Electric power supply for motor is not correct. 	<ul style="list-style-type: none"> - Remove overload. - Remove edge trim. - Replace chain - Replace bearing. - Check electric power supply. → Check circuit breaker output in case of one of each phase has problem. (Magnet relay contact point defect) → Replace magnet relay if everything is fine.
<p>Motor power supply is short caused by amplifier efficiency decrease due to heat by servo amplifier overload.</p>	<p>Wait for a couple of minutes and restart. If overload keeps going on, change a tooth disc (Increase gear ratio.)</p>

Upper web register mark(I-MARK)

Signal not to be recognized

Trouble Shooting

Problems	Troubleshooting
A photoelectron scanner not to be plugged	Plug into a photoelectron scanner.
A photoelectron scanner is dirty.	Clean a photoelectron scanner.
A flim slides to one side.	Install a film holder fine tuning and a film guide.
Register mark space is too big.	<ul style="list-style-type: none"> - Use other film or measure a register mark space. - Expand a working space. - Adjust a gap between a die and a cutting.
A photoelectron scanner installed not properly.	Check

Upper web stretching unit

Distance measuring fault

Problems	Troubleshooting
<p>Not to be reached a calculated stretching.</p> <ul style="list-style-type: none"> - Rotary shaft encoder is bad. - Compressed air is not properly supplied to a pneumatic cylinder. <p>A stretching cylinder is too slow to output a setting cycle.</p>	<ul style="list-style-type: none"> - Check - Check - Increase a stretching speed.

ECT

Emergency stop actuated

Trouble Shooting

Problems	Troubleshooting
Emergency stop doesn't activate due to dangerous condition.	Remove dangerous condition and release emergency stop.

Start up phase but, wait

Problems	Troubleshooting
Heat a heater up until setting temperature.	Wait until a heater to reach a setting temperature.

Insufficiency in the pack

Problems	Troubleshooting
Insufficient time for heating time or forming time.	Increase setting time.
Low forming pressure.	Increase forming pressure.
Heating temperature is too high or too low.	Adjust heating time.
To use a plastic plate inside forming die.	Change to aluminium plate.
Sound absorber not to be properly ventilated due to dirty.	Replace a sound absorber.
Air burble between a film and a heating plate.	

Trouble Shooting

<ul style="list-style-type: none"> -Bottom film advance is not paralleled. -Film tensile is too low. -Heating plate hole is blocked. - Heating plate is located too low. 	<ul style="list-style-type: none"> -Reset a film. -Check -Drill a hole. -Disassemble heating plate and assemble it again after adjusting a spacer.
<p>Hose line connected to a forming die is damaged.</p>	<p>Check the hose line.</p>
<p>Cooling water is supplied insufficiently.</p>	<p>Increase cooling water supply.</p>
<p>A closing diaphragm is leaked.</p>	<p>Replace.</p>

Pocket is damaged.

Problems	Troubleshooting
<p>No forming radius plate.</p>	<p>Insert a forming radius plate.</p>
<p>A forming radius plate is damaged.</p>	<p>Remove a forming radius plate.</p>

Leaked packing, poor sealing

Problems	Troubleshooting
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Trouble Shooting

Poor film load.	Upper film and bottom film should be contacted in parallel and sealed.
Sealing temperature is too high or too low.	Reset sealing temperature.
Sealing time is too short or too long.	Adjust a sealing time.
Sealing pressure is set too low.	Reset to 3–4bar to increase sealing pressure.
Sealing gasket is worn out.	Replace a sealing gasket.
Diaphragm on the sealing die upper part is faulty.	Replace a diaphragm.
Sealing plate is damaged. –Check valve on a sealing die is faulty.	–Replace a sealing plate.
In case of one side of packing is open (not be sealed) – Film advance is not unrolled well balanced. – Heating parts are faulty.	–Install a film guide. –Replace a heating part.
Film dregs in a sealing plate back is melted.	Completely remove it.

Cutting Error

Problems	Troubleshooting
Knife is blunt.	Change the knife.
Knife position is not correct after changing the knife.	Check.

Trouble Shooting

pneumatic line is loosen and faulty.	Check.
Spring is faulty.	Replace.
Not turn on the solenoid valve switch.	Check solenoid valve voltage (DC 24V).
Guide is dry.	Inject lubricating oil.

Film advance/Chain

Packing length is irregular and not correct.

Problems	Troubleshooting
Rotary shaft encoder/Motor connection or Drive train is loosening.	Check
AC Drive: Motor brake is defective.	Check.
Grip chain is sag.	Change the grip chain.

Film web stops not to be parallelized condition by chain clamp. Problems	Troubleshooting
Grip chain is too sag. Clamp is not to be opened,	Adjust grip chain tension.

Trouble Shooting

Film tensile force is not properly set.	Set film tensile force properly.
Film reel guides badly.	Install film guide to upward position. Move film mandrel completely. Check the movement of film mandrel easy axil.

Water line/ Compressed air system Error

Water drains on one side or from a die

Problems	Troubleshooting
O-ring located in machine frame and die upper part is absent or worn out.	Check.
Lead seal is defective.	Change.
Water hose is defective.	Change.

Water circulates in case of a machine stops.

Problems	Troubleshooting
Water infeed valve doesn't shut off correctly.	Clean and remove dregs.

Compressed air system error

Trouble Shooting

Problem	Troubleshooting
Condensed water remains.	Check a water trap or an air drier. Clean a water tank and a discharge valve.
Oil remains too much on a compressed air system.	Set a lubricating system. : one drop in every 5 minutes.

Multiprinter error

Problems	Troubleshooting
<p>Printing is vague or it won't printed.</p> <ul style="list-style-type: none"> -Black carbon paper is not be advanced step by step after printing. -Type block not to be pressed properly. -Heating temperature is too low. -Type press time is too short. 	<ul style="list-style-type: none"> -Check PLC ON signal. Is pulse ON? →Is pulse input to a staffing motor? →Change a staffing motor. If a staffing motor is OK, adjust a bottom belt tension a little strongly. -Check air supply → Check pressure → Adjust pressure. -Adjust heating temperature or change a sensor. -Increase type press time.
Black carbon paper is melt.	- Lower heating temperature or reduce pressing time.
Long step doesn't operate after step advance.	- Check printer tape step program value on screen and re-input after correction.

Other error

Trouble Shooting

It makes a strange sound in a forming die.

Problems	Troubleshooting
Silicon toroidal seal in a forming die is defective.	Change.
Forming time is set too long.	Adjust to reduce a setting time.
Heating/pressure increase time is set too long.	Adjust to reduce a setting time.

Compressed air is leaked.

Problems	Troubleshooting
Hose is damaged.	Change.
O-ring is damaged.	Change.
Diaphragm in ventilating valve becomes hard.	Change a diaphragm.

It is not sealed.

Problems	Troubleshooting
Foreign materials is in a sealing die and a plate.	Remove foreign materials without any damage of coating on plate.
Sealing plate pressure is too low.	Increase sealing plate pressure.
Temperature is low.	Increase temperature. (It depends on the film thickness.)
An upper film doesn't match in the center of a bottom film.	Match an upper film in the center of a bottom film.

Trouble Shooting

Sealing area of an upper film is different.	Make correct location of a film.
Sealing plate is not hot.	Replace a heater.

Automatic operation doesn't work.

Problems	Troubleshooting
Safety cover is wrong position.	Put safety cover into the right position.
Emergency switch is on.	Put emergency switch to Off position.
Others	Judge through alarm screen.
Check overload elsewhere.	Solve overload.

Vacuum error

Problems	Troubleshooting
Film is not sealed.	Increase plate temperature and pressure.
Vacuum pump doesn't work.	Turn on a vacuum pump.
Vacuum time is short.	Make long vacuum time.
Vacuum pump oil is murky or brown color.	Change oil.

Packing capacity is low.

Trouble Shooting

Problems	Troubleshooting
Automatic safety time is long.	Make automatic safety time short.
Vacuum time is long.	Make vacuum time short.

During a lift up and down, some strange sound happens.

Problems	Troubleshooting
Grease is short in every part of a lift.	Inject grease to every part of a lift.

Rotary knife is not rotated.

Problems	Troubleshooting
The center of a rotary knife is wrong.	Fit the center of a rotary knife.
The rotary knife brake is switched off.	Switch on the rotary knife brake. (It locates in the control box.)

Trouble Shooting

Periodic check point

Before packing machine operates keep in mind compressed air should not be contained moisture. Compressed air should be dried.

Item for periodic change or supplement

Items	Period
Grease injection for sealing and forming lift	Every 3 months for one injection.
Vacuum pump oil	Every 1 month for one time It depends on the condition of oil. If the color changes murky, change oil promptly.
Vacuum pump filter	Every 12 months (It might be shorter on the filter condition.)
Moisture removal from compressed air filter	As often as possible
Grip chain oil	Every 3 months for one time
Removal of film scrapper around round cutters	As often as possible
Removal of rubbish from grip chain or inside of packing machine	As often as possible
Cooling water check	As often as possible
Printer ribbon	As open as possible
Every bolts, nut check	Every 3 months for one time.
Rotary cutter	Change if film cutting face is rough or not be cut smoothly.

Trouble Shooting

Upper film brake pad	Remove the foreign materials
Chain	Every 4 to 5 years. (It depends on the operating condition.)
Cross cutter knife	Change if film cutting face is rough or not be cut smoothly.
Compressed air main unit oil supplement	AS often as possible and replenish