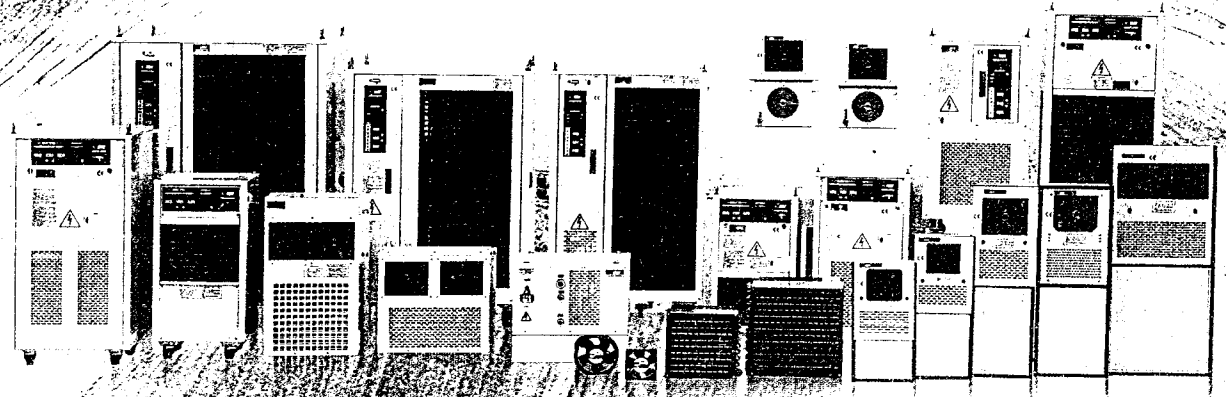




OIL COOLER FOR INDUSTRIAL MACHINERY

使用說明書

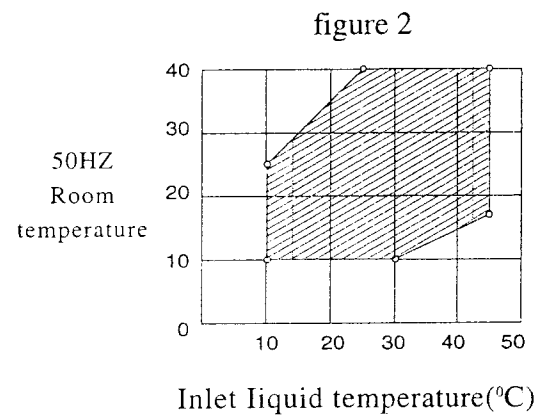
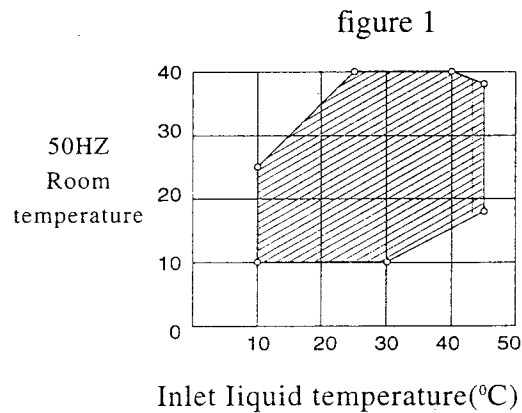


1. General caution

1-1 Application

This oil cooler series is designed specifically to remove heat generated in the spindle oil of CNC machining centers.

The following charts indicate the operating oil / liquid temperatures for various ambient room temperatures in order that precision of the finished work piece is obtained.



1-2 Diff value of electricity supply and frequency

1-2-1 The cooler is designed with built in protection for the compressor and electrical parts.

1-2-2 Tolerance is within $\pm 1^{\circ}\text{C}$

1-3 The oil filter shall be installed at the return line (inlet) of the cooler.

1-4 Oil cooler uses hydraulic oil and lubrication oil. The directed oil for Wexten cooler is 2-300 CST. The oils below are prohibited.

- (1) Hydraulic oil of phosphoric ester and chlorinated hydrocarbon types, water water/glycol hydraulic oil.
- (2) Cutting oil, grinding oil and water-soluble liquid.
- (3) Medicine and corrosion liquid.
- (4) Gasoline, kerosene and EDM oil.

1-5 Operating noise level of the cooler meet ISO9001 / ISO14000 requirement. Industrial product must be under 70 decibel.



3
F

2. Care of the cooler

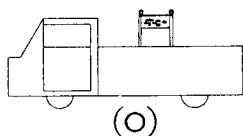
2-1 Keep it upright and steady during transportation. (see figure 1)

2-2 Using a crane or a hoist machine to move the cooler should notice:

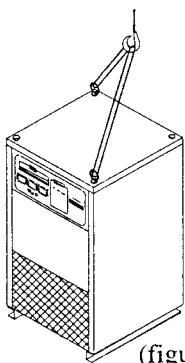
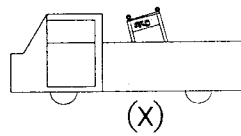
- (1) The weigh of cooler and the choice of steel wire.
- (2) Keep balance when lifting, in lest the cooler falls off. (see figure 2)

2-3 Place cooler on flat ground and avoid direct sunlight or heat. (see figure 3)

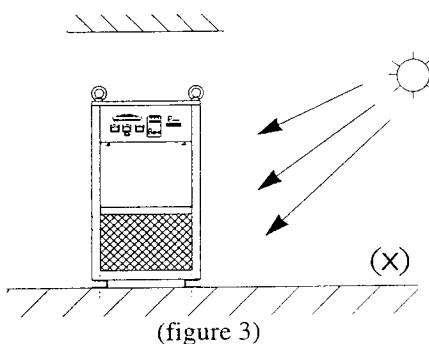
2-4 Choose a well - ventilated location. (see figure 4)



(figure 1)



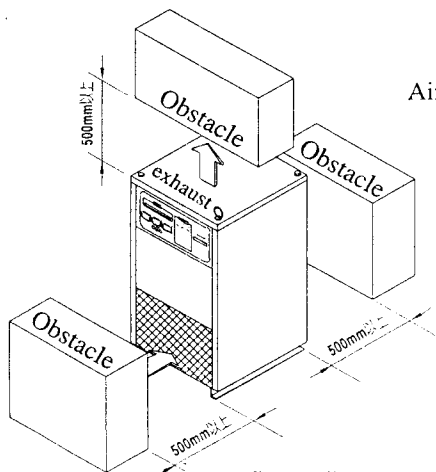
(figure 2)



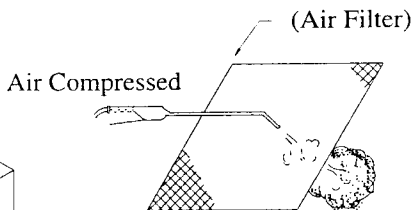
(figure 3)

2-5 Use a mild solvent to clean the cooler exterior. Do not use anything corrosive or acidic.

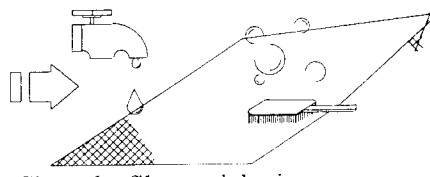
2-6 The filter gauze shall be washed once a week with soapy water. (see figure 5)



(figure 4)



(figure 5)

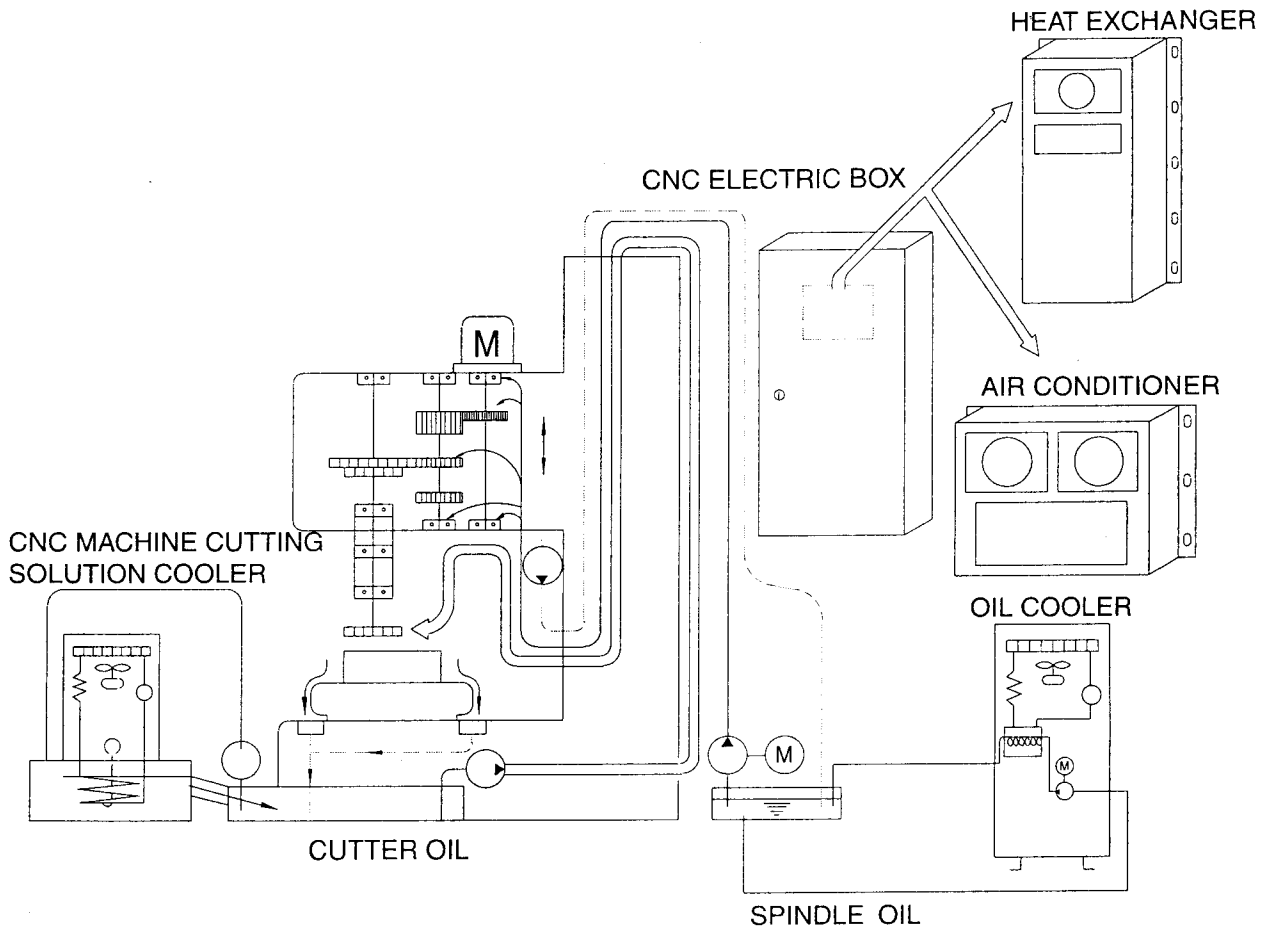


Clean the filter and dry it

CNC M
SOLUT

3. Applied Machinery:

For CNC Machine --- Oil Cooler





4. Wiring and control circuit diagram:

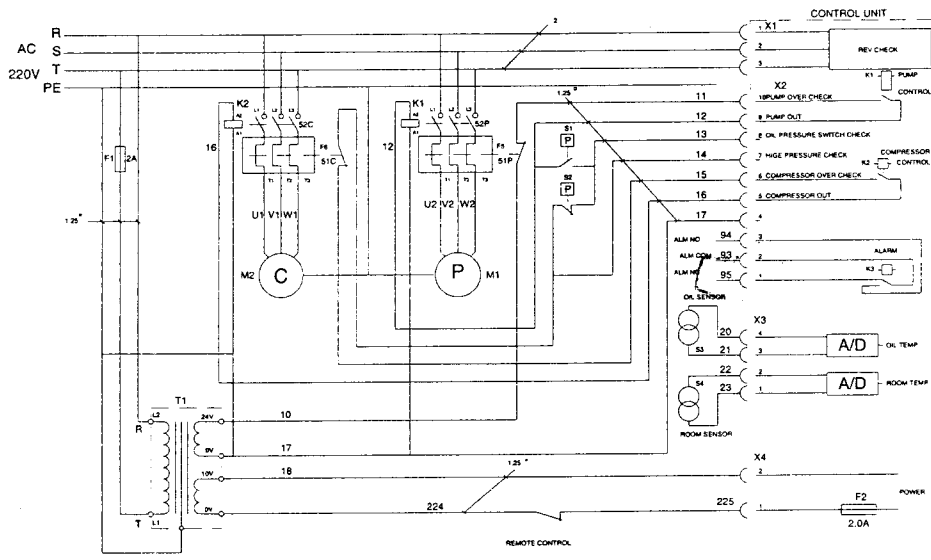
For electrical connections, please refer to the relevant diagram based on the model details shown on side plate of cooler.

4-1 Electrical power source.

There are options for 1Ø、3Ø、220V、380V、440V (50HZ/60HZ)

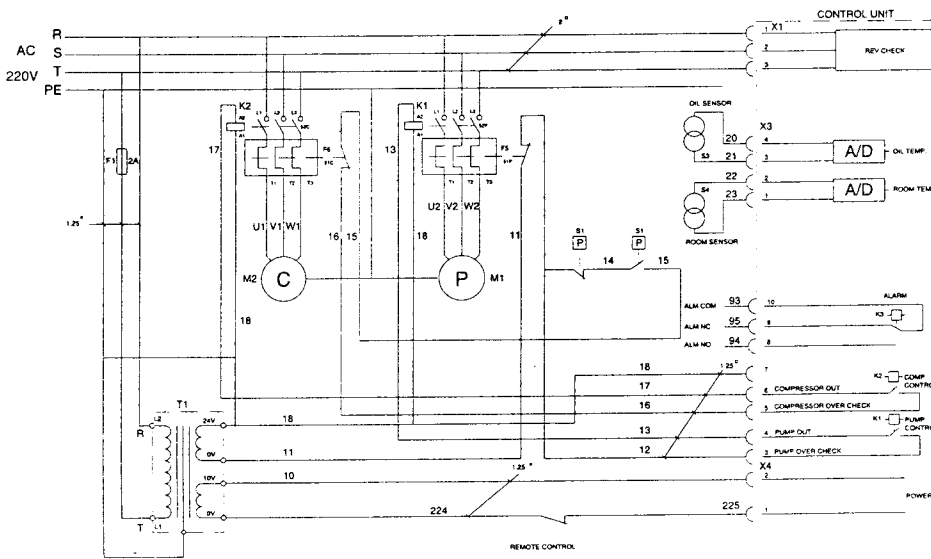
4-2 The ground wire must be yellow-green wire. And the pad of screw must be with tooth shape to fasten tightly the iron board for breaking the coating and preventing danger when leaking can't be eliminated.

4-3 POINT-Horizontal/Vertical big control panel circuit diagram



*24V 5A/10A
T1-1*

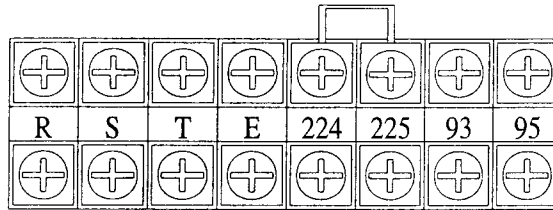
4-4 POINT-Horizontal small control panel circuit diagram



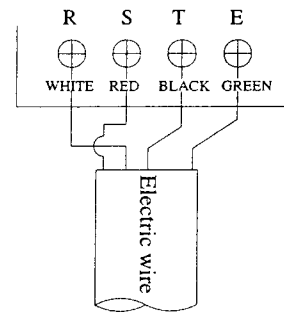
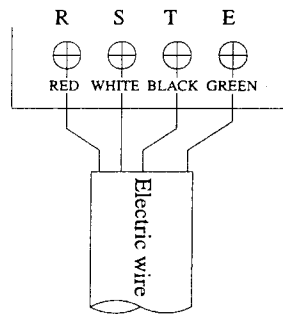
4-5 Diagram of power connection, alarm connection and remote control

model

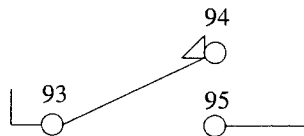
st be
g and



1. R.S.T are the power source connections of the cooler. When the phase sequence is in correct, the alarm lamp will be shown on the small control panel and the monitor will display RE. And big control panel will display REV.



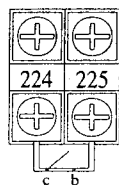
2. E is the earth wire (yellow -green color)
3. Under no power supply condition.
 - (a) 93,94 are normally close.
 - (b) 93,95 are normally open.



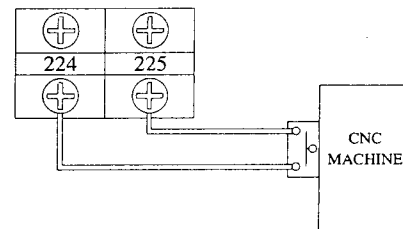
P.S. As usual, 93,95 are alarm connection in our cooler. Please change the 94 and 95 when you feel unsuitable for your machine. (94 is in the line box on the electric panel)

224,225 are the remote control connection and can be connected with the working machine as the ON/OFF switch.

224,225 normally are in the short circuit condition when the cooler shipped out, by user's request the short circuit can be released and connected to the b point of the CNC controller to stop the cooler.



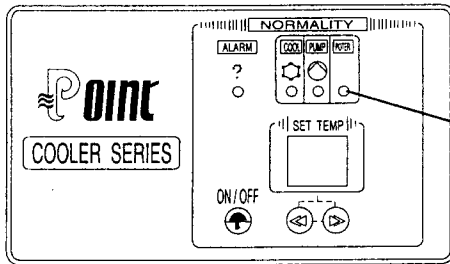
OR





5. Check points before operation

1. When the power source is turned on, check to see if power lamp is lighted up. (see figure 1)
2. Check that electrical resistance of compressor and pump is above 500 ohms.
3. Check that the oil level is at least at 80% level of the oil tank. (see figure 2)
4. Check that the outlet of the oil tank is tightly secured.
5. Check that the overload switch is at "on" position.
6. Check that value is set at 6 kg/cm² for the pump pressure. (6kg/cm² indicates 12L/min, 20L/min, 30L/min pump adjust pressure; 3.5kg/cm² indicates 4.5L/min, 7.5L/min pump adjust pressure)
7. Check the high pressure switch of cooler of capacity 3000 kcal/hr is adjusted at 23 kg/cm² and 28 kg/cm² for cooler of capacity above 6000 kcal/hr. (see figure 3)
8. Check if the oil inlet is fitted with an oil filter. (see figure 4)
9. Check cooling medium high/low pressure, if the indication needle position is as same as the testing report.



If power lamp is lighted up

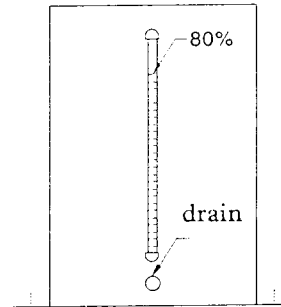
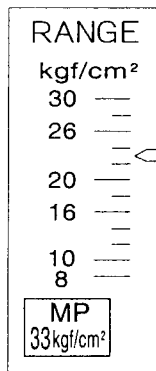
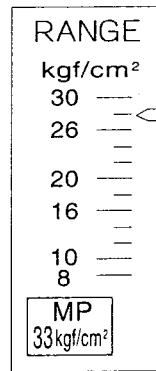


figure 1

figure 2



3000Kcal/H



6000Kcal/H

figure 3

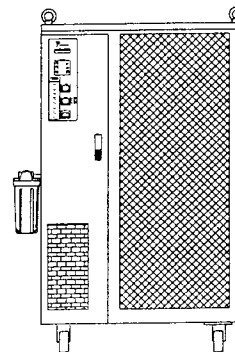
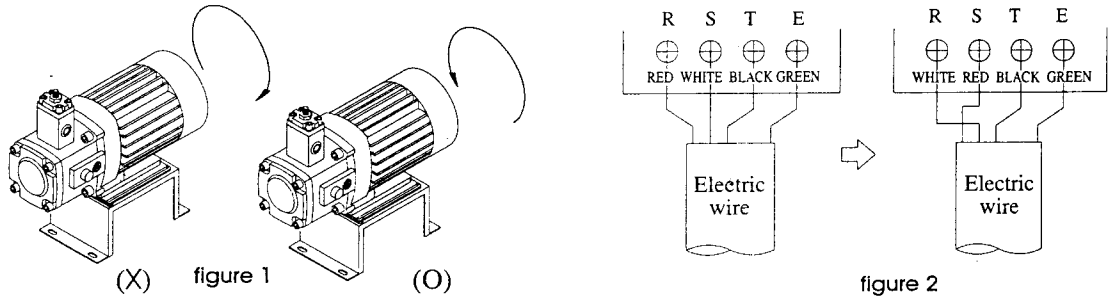


figure 4

6. Caution for operation

1. Beginning to start the operative switch must be sure if the oil pressure motor pump runs following the arrow direction. If the power source is reversed, please exchange any 2 wires of R.S.T. and turn off the power source while changing the connections. And when the power source is right, all the motors will run as the figure 1. (see figure 1 and figure 2)



2. Avoid running the pump without load.
3. When the pump is run in, the compressor shall cut in about 90 seconds later.
4. Avoid air lock in the piping system. Choose a higher connection. Loosen and run in until all air bubbles are cleared. (see figure 3)

Horsepower	Max. flowing rate	Piping dia.
1HP	60L	1" × 1"
1-1/2HP	80L	1" × 1"
1-3/4HP	120L	1-1/2" × 1-1/2"
2HP	150L	1-1/2" × 1-1/2"

(chart 1)

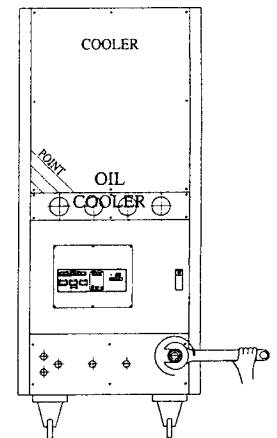


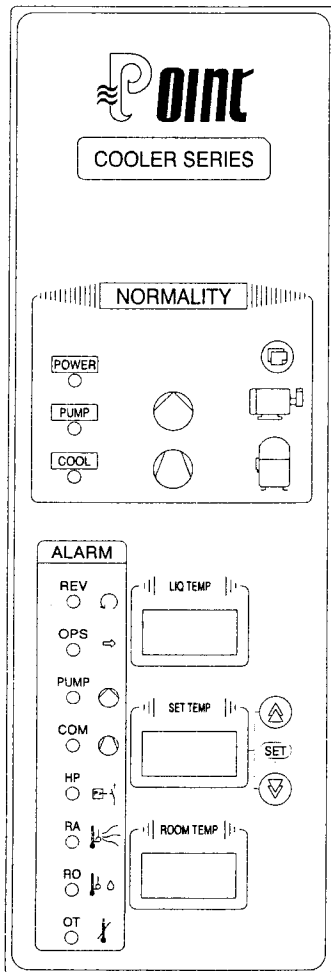
figure 3

5. Try not to ON/OFF the cooler repeatedly. The overload switch may open. When this happens, allow a 2-3 minutes break before operating cooler again.
6. Use-oil sticky extent of lubricating oil and the pipe-diameter size for pump flow capacity, if CST (sticky extent) is too big or pipe-diameter is too small, then the motor load will become larger and pump will have unusual noise. Thus, please refer the oil -operating manual in order to avoid choosing mistakenly to cause the damage.

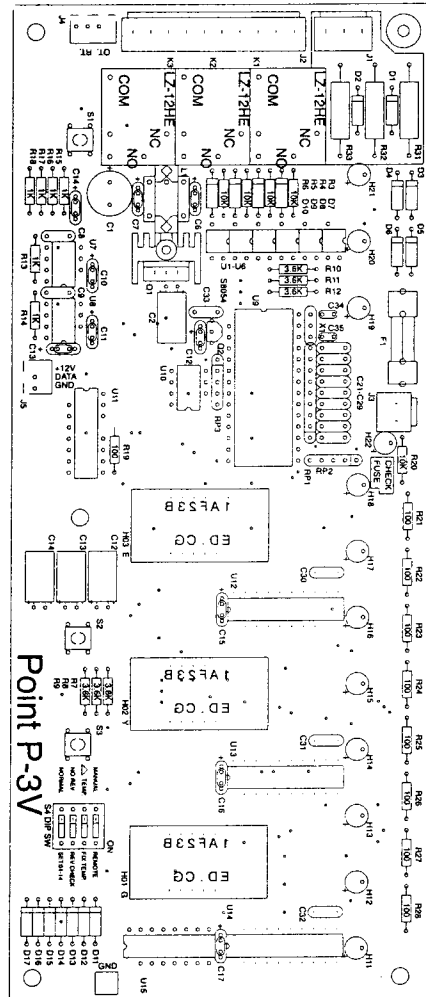


7.Explanation for control panel and function

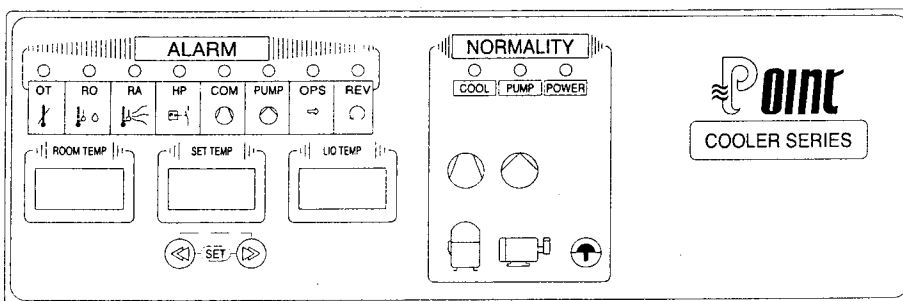
7-1 Diagram of control panel



<Vertical big control panel front view>

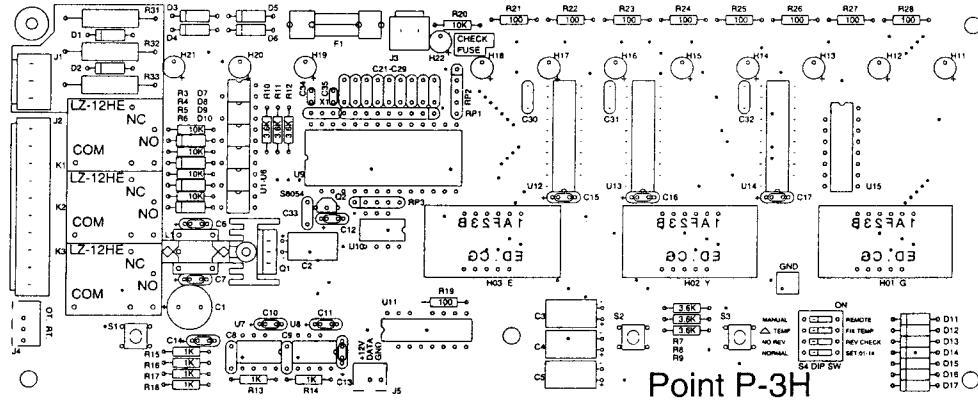


<Vertical big control panel rear view>
















<Horizontal big control panel front view>

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13



<Horizontal big control panel rear view>

7-1-1 Operation and function of control panel

NO.	ITEM	OUTLINE	OPERATION&FUNCTION
1	Set keys	ON/OFF SWITCH 	Run/Stop Switch.touch type
2		SET TEMPERATURE 	⇐ Low temp.setting key.touch type ⇨ High temp.setting key.touch type
3	Working keys	POWER ----green lamp 	Power Source lamp Show the cooler is with electricity
4		PUMP ----green lamp 	Pump is running normally
5		COOL ----green lamp 	Compressor is running normally
6	Alarm signs	REV -----Red lamp 	Three phase power unusual
7		OPS -----Red lamp 	Oil pressure circuit unusual
8		PUMP-----Red lamp 	Pump motor unusual
9		COMP -----Red lamp 	Compressor is running unusual
10		HP -----Red lamp 	Refrigerant's pressure unusual
11		RA-----Red lamp 	The room temp.Sensor is not working.
12		RO -----Red lamp 	The oil temp.Sensor is not working.
13	OT -----Red lamp 	Oil temp.is too high	

7-1-2 VERTICAL/ HORIZONTAL BIG CONTROL PANEL SETTING FUNCTION

S4 DIP SW FUNCTION:

1. OFF -> MANUAL CONTROLLED / ON -> REMOTE CONTROLLED
2. OFF -> DIFFERENTIAL ACTION MODE / ON -> CONSTANT TEMPERATURE MODE
3. OFF -> NO DETECTION REV / ON -> DETECTION REV
4. OFF -> NORMAL ACTION MODE / ON -> FUNCTION SETTING

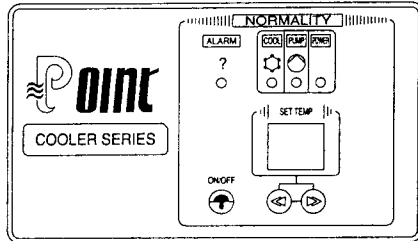
S4 DIP SW - 4: ON

FUNCTION SETTING : USING THE KEY ON/OFF TO CHOOSE THE SETTING ITEMS FROM 00-14 AND USE THE KEY \triangle / ∇ TO ADJUST THE SETTING VALUE.

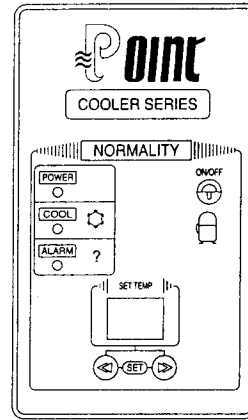
- 01 : Alarm Setting For Over Temp. : Setting range from setting protection value for low temp. to 99.°C. The indicate lamp "OT" will light and output the alarm signal when liquid temp. is over the setting value. If you don't need this alarm setting, you can adjust it to 100°C.
- 02 : Setting Protection For Low Temp. : Setting range from -40°C to the alarm setting value for over temp. The compressor will stop running when liquid temp. lower the setting value.
- 03 : Setting The Top Of Constant Temp. : Setting range from the bottom of constant temp. to 99.°C. It is used to limit the operating mode of constant temp. of the cooler, to set the maximum of temp.
- 04 : Setting The Bottom Of Constant Temp. : Setting range from -40°C to the top of constant temp. It is used to limit the operating mode of constant temp. of the cooler, to set the minimum of temp.
- 05 : Setting The Top Of Differential Temp. : Setting range from the bottom of differential temp. to 9.9°C. It is used to limit the operating mode of differential temp. of the cooler, to set the maximum of temp.
- 06 : Setting The Bottom Of Differential Temp. : Setting range from -9.9°C to the top of differential temp. It is used to limit the operating mode of differential temp. of the cooler, to set the minimum of temp.
- 07 : The Action Precision Of Compressor : Setting range from the stop temp. difference to 9.9°C.
- 08 : The Stop Precision Of Compressor : Setting range from -9.9°C to the action temp. difference. *** Item 07 and 08 are used to adjust the controlling precision of the cooler (ON/OFF RANGE)***
- 09 : Postpone Compressor's Starting Time : Setting range from 000 to 250 seconds. It's a protective function for the compressor having more time to restart after stop running.
- 10 : Display Room Temp. When Operating The Constant Temp. : Setting "YES" Or "NO"
YES : Display room temp. NO : Display 25°C.
- 11 : Pump Will Stop Running When All ALARM Display : Setting "YES" Or "NO"
YES : Pump will stop when all ALARM. NO : Pump will stop when OFF, pump overload and REV.
- 12 : Pump And Compressor Connecting Motion : Setting "YES" Or "NO"
YES : Pump will run when compressor runs. NO : Pump will run when cooler is at "ON" position.
- 13 : Rectifying The Liquid Temp. : Using this function to rectify when liquid temp. has plus and minus.
- 14 : Rectifying The Room Temp. : Using this function to rectify when liquid temp. has plus and minus.

7-1	NO
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	6

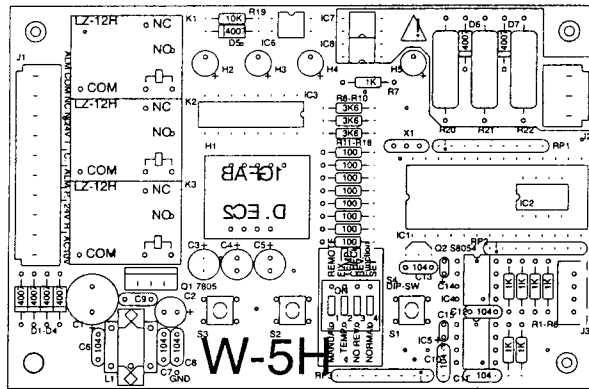
7-2 Monitor displays control panel



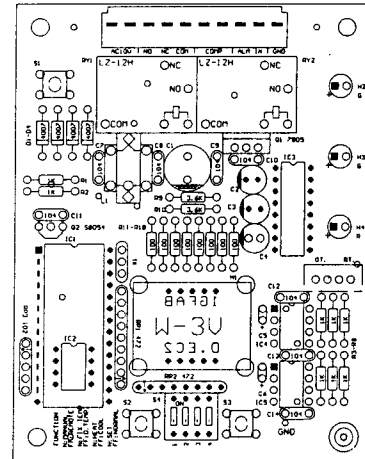
<Horizontal small control panel front view>



<Vertical small control panel front view>



<Horizontal small control panel rear view>



<Vertical small control panel rear view>

7-2-1 Operation and function of small control panel

NO.	ITEM		OUTLINE	OPERATION&FUNCTION
1	Set keys	ON/OFF SWITCH		Run/Stop Switch.touch type
2		SET TEMPERATURE		Usually display liquid temp,after pressing the temp setting key, monitor will twinkle and display the setting temp. In the mean time,use setting key to set temp.
3	Working keys	POWER ----green lamp		Power Source lamp Show the cooler is with electricity
4		PUMP ----green lamp		Pump is running normally
5		COOL ----green lamp		Compressor is running normally
6	ALARM	BREAKDOWN ALARM LAMP	?	Cooler is unusual

1. When ALARM LED lights up, it indicates pump overload switch \ discharge rate switch \ pressure switch or compressor overload switch is unusual. Please check if the switch is turnoff, to reset it and refer excluding breakdown method from manual, to clean the filter, etc. To avoid ALARM again.
2. When ALARM LED lights up and RE is displayed, it indicates power phase is in error. Please check the wiring connections. If you are using a single phase power source, please cut-over the "3" in S4's DIP-SW to the position OFF on the electric board.
3. When ALARM LED lights up and O.S. is displayed, which mean oil/water (SENSOR) is unusual.
4. When ALARM LED lights up and R.S. is displayed, which mean room temperature (SENSOR) is unusual.

7-2-2 DIP SW FUNCTION :

7-2-2-1 HORIZONTAL SMALL CONTROL PANEL OPERATING MANUAL

S4 DIP SW FUNCTION :

1. OFF -> MANUAL CONTROLLED / ON -> REMOTE CONTROLLED
2. OFF -> DIFFERENTIAL ACTION MODE / ON -> CONSTANT TEMPERATURE MODE
3. OFF -> NO DETECTION REV / ON -> DETECTION REV
4. OFF -> NORMAL ACTION MODE / ON -> FUNCTION SETTING

7-2-2-2 VERTICAL SMALL CONTROL PANEL OPERATING MANUAL

S4 DIP SW FUNCTION :

1. OFF -> MANUAL CONTROLLED / ON -> REMOTE CONTROLLED
2. OFF -> DIFFERENTIAL ACTION MODE / ON -> CONSTANT TEMPERATURE MODE
3. OFF -> COOLING / ON -> HEATING
4. OFF -> NORMAL ACTION MODE / ON -> FUNCTION SETTING

S4 DIP SW - 4 : ON

FUNCTION SETTING : USING THE KEY ON/OFF TO CHOOSE THE SETTING ITEMS AND THEN USE THE KEY \triangle / ∇ TO ADJUST THE SETTING VALUE.

Setting items : By ALARM, COOL, POWER 3 LED and COOL, PUMP, POWER 3 LED twinkling status to show*

(COOL) (PUMP) (POWER) : HORIZONTAL SMALL CONTROL PANEL

ALARM COOL POWER : VERTICAL SMALL CONTROL PANEL

LED LED LED

- | | | | |
|---|---|---|--|
| ● | | ● | : Alarm setting for over temp. |
| | ● | | : Setting protection for low temp. The compressor will stop running when liquid temp. lower the setting value. |
| | ● | ● | : Setting the top of constant temp. It is used to limit the operating mode of constant temp. of the cooler, to set the maximum of temp. |
| ● | | | : Setting the bottom of constant temp. It is used to limit the operating mode of constant temp. of the cooler, to set the minimum of temp. |
| ● | | ● | : The action precision of compressor. |
| ● | ● | | : Rectifying the liquid temp. Using this function to rectify when liquid temp. has plus and minus. |
| ● | ● | ● | : Rectifying the room temp. Using this function to rectify when liquid temp. has plus and minus. |

8
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(V)
SU
50.00
30.00
20.00
10.00
5.00
3.00
2.00
1.00
50
30
20
15
10
60



8. Piping connection

1. The diameter of the pipes which connects to the cooler should not be smaller than the cooler pipe size. The vacuum pressure should be in the rang of -230 to 0 mm Hg (-0.3 kgf/cm²)
2. Choose the correct oil filter. Recommended mesh size is between 10 mm to 15 mm.
3. Loss of cycle pressure of outlet piping is less than 2 kgf/cm²
4. Formula of pipe resistance

$$P=6.07 \times V \times Q \times L/D^4$$

Generally, the sticky extent for oil pressure oil and lubricating oil is R-32.

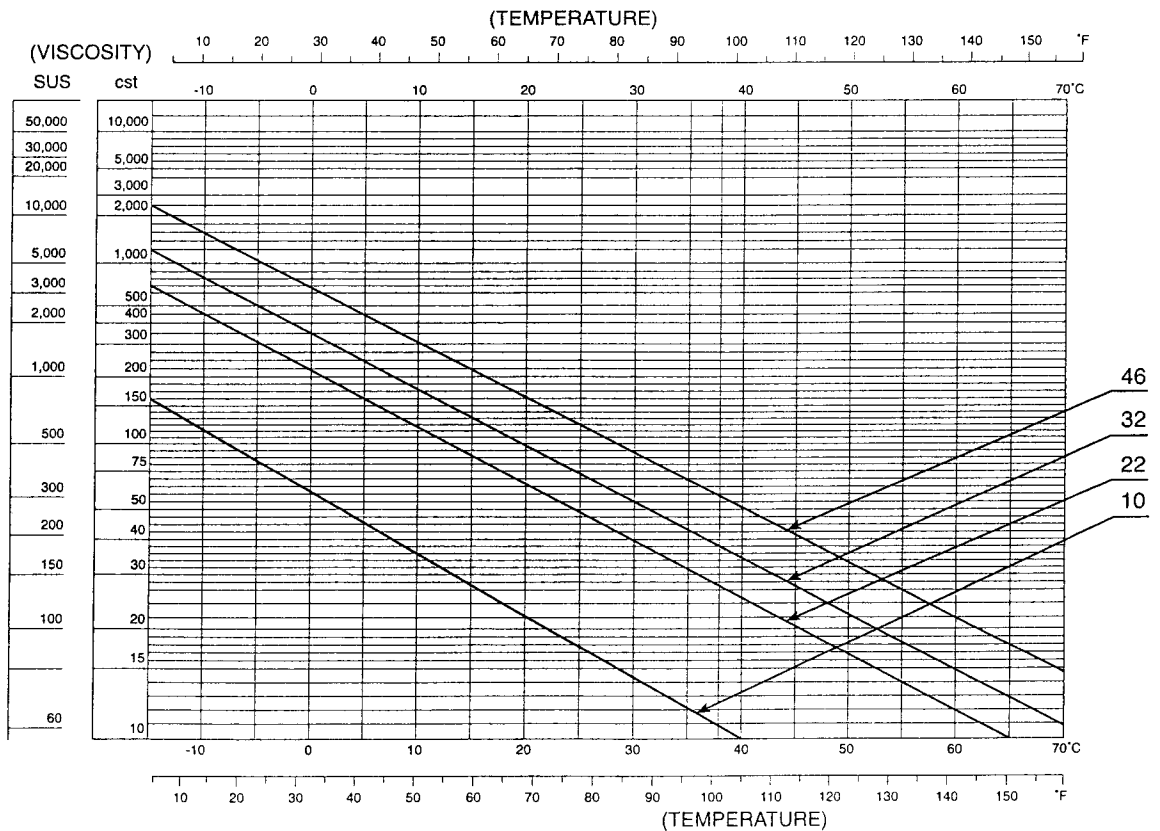
V: CST

Q: L/MIN

L: METER (LENGTH OF OIL PIPE)

D: MM (PIPE DIAMETER)

9. Oil sticky extent diagram



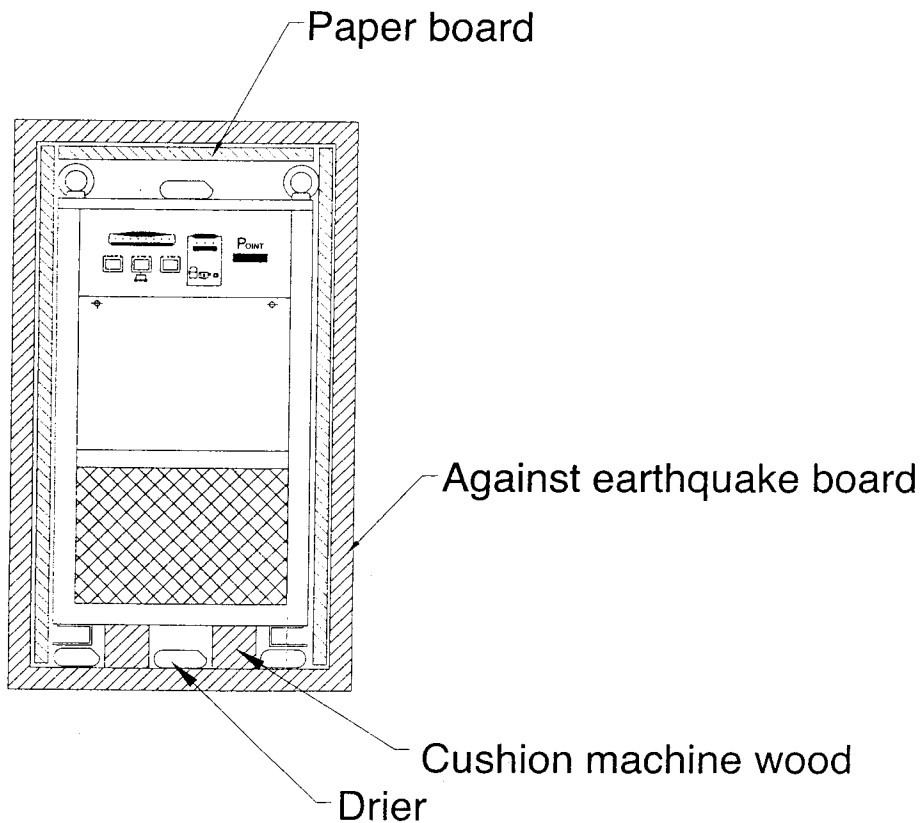


10. Caution for package and moving

1. It is important to prevent vibration or any violent shaking during transportation and moving.
2. Do not tilt cooler during packing.
3. Fix the cooler base to bottom of wooden case. For those with castors / wheels, lock in position with wooden pieces to base of wooden case during packing.
4. Be sure that the desiccants are property arranged in cooler during packing.

Attention: The damage caused from delivery and unsuitable packing will be outside our responsibility.

(Please refer the drawing below)





11.Alarm

Possible Causes and Remedial Action

1. For any alarm signals, please refer to the following recommended remedial action. If problems cannot be solved, please contact us or our nearest agent. Checking the cooler model, serial number and the particular alarm sign shown on control panel.

Condition	Cause	Remedy
Power lamp is off	1. LED lamp circuit burnt. 2. PCB fuse blown 3. Transformer burnt 4. Wire 18,19 loose connection	1. Replace PCB 2. Replace fuse 3. Replace transformer 4. Reconnect wire 18 & 19
REV is lighted	1.3 phase power wrong connection 2.Pressure reduction and differential value of 3 phase is above $\pm 10\%$	1. Switch any 2of the R.S.T wires 2. Stability power source
OPS is lighted	1. Inlet oil pipe is clogged or loosened 2. Inlet & outlet are reversed 3. Pump motor runs reverse 4. Pump can not run 5. Circulation oil is not enough 6. Oil filter is dirty 7. Oil pressure switch breakdown	1. Check, clean and lock pipe 2. Correct position of in/outlet 3. Check over-relay of 51p red and white lines 4. Replace oil pump 5. Supply circulation oil 6. Replace new filter 7. Adjust oil pressure switch DIFF, 0.3 kgf/cm ² , range 0.5-0.8 cmHg
PUMP is lighted	1.Over-relay switch tripped 2.Pump switch is off 3.Inlet pipe is clogged	1. Reset switch 2. Reset pump switch 3. Clean pipe and replace oil filter
COM is lighted	1.Over-relay is off 2.Compressor breakdown	1. Reset switch 2. Replace compressor
HP is lighted	1.Condenser is too dirty 2.Air filter is not clean 3.Cooling fan doesn't run or blades fall off 4.Cooling medium pressure switch breakdown 5.Cooling medium is leaking	1. Use compress air to clean 2. Clean filter 3. Lock fan blades tightly or replace fan motor 4. Replace cooling medium pressure switch 5. Irrigate cooling medium
RA is lighted	1.Room temp. Sensor breakdown	1.Replace RA sensor
RO is lighted	1.Oil temp. Sensor breakdown	1.Replace RO sensor
OT is lighted	1. Oil temp. is too high 2. Temp. sensor blown 3. Checking cooling medium is enough or not	1. Stop running cooler until oil temp. returns to normal range. Start again 2. Replace temp. sensor 3. Supply cooling medium

***Lack of cooling medium

The following condition is caused by lack of cooling medium:

No alarm information but the motors keep running, cooler can not reach set temperature and working machine's spindle is hot.

If the above situation occurred, please professional technical staff to deal with or contact us.

***Oil tank and filter

1.Oil level in tank should be at least at the 80% level mark, in lest the pump sucks in air. At the same time, maintain the oil is clean.

2.The oil filters must be replaced or cleaned periodically, in order to prevent accumulating iron powder to reduce the flow capacity of pump and cause noisy.

WEXTEN MAIN PRODUCTS SERIES

TYPE	APPLICATION	FEATURE
CO SERIES-OIL COOLER	<ul style="list-style-type: none"> • CNC machine center • CNC grinder. Broach Machine • CNC wood carving machine • Oil pressure machine • CNC lathe. High-speed lathe 	<ul style="list-style-type: none"> • Maintain constant oil temperature. • Prevent oil deterioration. Maintain oil viscosity ensures smooth and stable oil pressure • Built-in safety protection devices ensure no sudden breakdown. • Computer controlled sensors adjust oil temperature according to ambient temperature ensure precision in machining processes.
CW SERIES-WATER COOLER	<ul style="list-style-type: none"> • Wire cutting machine • Printing machine • High-cycle cooling machine • P.U foam machine • Ultrasonic machine 	<ul style="list-style-type: none"> • Condenser unit mounted at top for top heat discharge. • Easy set up. Easy maintenance. No need for cooling tower. Efficient heat exchanger prevent carbon and dirt accumulation. • Pastel colors ensure easy match with most work environments and CNC machines. • Electronic digital temperature control of ± 1 degree C.
CA SERIES-AIR CONDITIONERS FOR ELECTRICAL CONTROL PANELS	<ul style="list-style-type: none"> • CNC lathe • CNC machining center • CNC planomiller • CNC planogrinder • CNC machining center (5 sides) • CNC laser cutting machine • CNC spring machine • CNC wire cutting machine 	<ul style="list-style-type: none"> • Maintain steady, air conditioned cooling within the recommended operating temperature for electrical panels. • Prevent ingress of dust, humidity and moisture into electrical control panels. • Tough design. Can withstand high ambient temperature of 38 degrees C and above. • May be internal or external mounted. Enclosed design ensure no mixing of internal and ambient air. • Most suitable for electrical control boxes or panels when the operating temperature must be lower than the ambient temperature.
CE SERIES-EDM SPECIAL PURPOSE COOLER	<ul style="list-style-type: none"> • EDM machine 	<ul style="list-style-type: none"> • Compact heat exchanger design ensure no clogging due to accumulated carbon particles. • Maintain constant oil temperature ensure quality of the EDM process. • Prevent oil carbonization. Help reduce fouling of the air of the working environment ensure operators' health are protected. • EDM can now operate with higher current discharge to help reduce machining time. • Prevent fire risk from carbon accumulation due to continuous machining.
EA SERIES-HEAT EXCHANGER	<ul style="list-style-type: none"> • CNC lathe • CNC machine center • CNC press machine • CNC grinder • CNC internal & external diameter grinder • CNC papier loom • CNC milling machine • Laser cutting machine 	<ul style="list-style-type: none"> • Ideal and efficient device. Energy saving • Simple, handy and efficient heat exchanger. Enclosed design ensure no exchange of internal and ambient air. • Build to IP protection ratings. • Heat conduction efficiency 1600 times of copper • Choice of Internal or External Mount
AW SERIES-WATER COOLING FOR WELDING MACHINE	<ul style="list-style-type: none"> • Various welding machines • Printing • Optical instruments • Medical instruments 	<ul style="list-style-type: none"> • Prevent overheating or burned head of welding gun. • Built in water tank reduces water consumption. • Simple design. Easy maintenance. • Improved welding efficiency. Lower cost. • Ensure test instrument reading stability. Little fluctuation



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WEXTEN MAIN PRODUCTS SERIES

TYPE	APPLICATION	FEATURE
AO SERIES- HEAT PIPE HEAT EXCHANGER FOR OIL COOLING	<ul style="list-style-type: none"> • CNC oil-pressure system of lathe • Oil-pressure of internal & external diameter grinder • Various oil-pressure tank • Oil-pressure system of CNC machine center 	<ul style="list-style-type: none"> • Reduce oil temperature and maintain oil viscosity. • Simple design. Easy maintenance. Long product life. • Design ensure no mixing of oil and water. • Energy saving. Small power consumption.
EC SERIES- HEAT PIPE HEAT EXCHANGER	<ul style="list-style-type: none"> • CNC lathe • CNC machine center • CNC press machine • CNC grinder • CNC internal & external diameter grinder • CNC papier loom • CNC milling machine • Laser cutting machine 	<ul style="list-style-type: none"> • Ideal and efficient device. Energy saving • Simple, handy and efficient heat exchanger. Enclosed design ensure no exchange of internal and ambient air. • Build to IP protection ratings. • Heat conduction efficiency 1600 times of copper • Top mount type, space saving when installed in control box.
CR SERIES- SPECIFIC FOR CNC WIRE CUTTING	<ul style="list-style-type: none"> • CNC wire cutting machine 	<ul style="list-style-type: none"> • Top discharge of exhaust heat • Electronic panel temperature control with tolerance of ± 1 degree C. • Maintain constant cooling temperature ensure product precision. Reduce wire consumption. • Stainless steel heat exchanger. Evaporator design of large pipe diameter ensure high flow. • When interlocked to CNC machine, breakdown, if any, will be indicated.
CAD SERIES- COOLING AIR DRYER	<ul style="list-style-type: none"> • Machine pneumatic tool • Medical appliances • Paint - laser cutting machine • High-speed drive axle. 	<ul style="list-style-type: none"> • Prevent corrosion, and rust formation • Increased paint color brilliance. No bubbles. • Improved heat exhaustion. • Prevent refraction mirror breakage caused by laser.
PF SERIES- COOLING FAN		<ul style="list-style-type: none"> • High wind power. Low noise. • Tough fan blades. Not easily deformed. • Concealed joint. Help reduce corrosion.
CL SERIES- WATER COOLER FOR CNC LASER CUTTING ENGRAVER MACHINE	<ul style="list-style-type: none"> • Heavy laser machines (1000W ~ 2500W) • Small-type laser machines (50W ~ 300W) 	<ul style="list-style-type: none"> • Cool the laser cutting head. • Use high pressure pump and water pressure circuit ensure system protection. • Use 316 stainless steel compact brazed heat exchanger. save on energy consumption and ensure good heat exchange. • Has remote control operation and breakdown signal indication when connected to CNC laser cut machine • Cooling the laser head engraving or cutting head compartment
CK SERIES- CNC CUTTING MACHINE COOLER	<ul style="list-style-type: none"> • CNC lathe • CNC machine center • CNC grinder • CNC internal & external diameter grinder • CNC milling machine 	<ul style="list-style-type: none"> • This CK series is suitable for turning, grinding and cutting machines. No impurities or metal filing interference. • Easy to maintain and clean. • Stainless steel shell heat exchanger ensures no corrosion problem • Easy to install. Space saving.

Attention

- (1.) If our company use high efficient compact braze heat exchanger in our cooler machine. You have to check if the oil is circulating before turn on the machine. The compact brazed heat exchanger is easy broken due to iced if you didn't check. We suggest you set up "check vale" at input gate to void the compact brazed heat exchanger break due to iced. We don't guarantee that because your overlook and let the compact brazed heat exchanger break.
- (2.) You can't use the cotton pipe to connect our cooler machine. The cotton pipe doesn't suit to the high pressure pump and easy to get old and change shape. Be careful.
- (3.) The compact brazed heat exchanger iced and broken because you didn't give enough oil to the cooler or the oil doesn't circulate smoothly in the pipe. We don't guarantee the problem which happen since your overlook.
- (4.) Please clearly read the operational book before you turn on the machine. The book is enclosed with our cooler machine. If you haven't the book, please contact with original sale company or WEXTEN PRECISE INDUSTRIES CO.,LTD.