



## Protecting Air Quality

Support for inspection, repair and maintenance of main line components



# We recommend preventative maintenance for air dryers and main line filters.

Poor maintenance, deterioration, clogging, etc., are detrimental to "Stable Clean Air Quality".

The supply of stable quality air will also help you  
**save energy** and contribute to **improved product quality**.

### 3 aspects of professional support

#### 1 Onsite inspection/repair/maintenance support

Worksite recovery is the first priority. We carry out onsite inspection, repair and maintenance.

#### 2 Factory inspection/repair/maintenance support

Send us your products for inspection, repair and maintenance.

#### 3 Technical inquiries supported

We offer support for maintenance methods, malfunction countermeasures and technical consultation.

See the next page  
for representative examples:  
check it right now!

Go!



Contact CKD sales offices throughout the country for details.

CKD Dr. Main Line



CKD Corporation

CC-1344A

## Main line filter

Regular element replacement protects the "air quality".



### ? Ever have this problem?

- Wasting of energy through pressure loss
- Contamination of secondary side air with oil or particles

### ✓ POINT to CHECK

Element deterioration or adhesion of foreign matter

Element

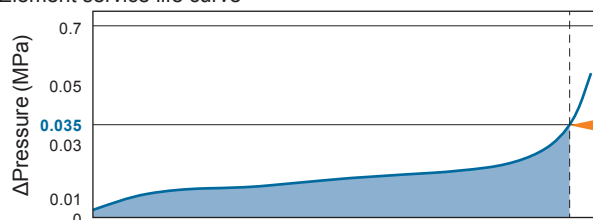


Deteriorated element



The filter element must be replaced.

Element service life curve



We recommend regular replacement of the element, with 1 year as a guideline.

## Refrigeration air dryer

Periodic and simple inspections have been made compulsory by the Fluorocarbons Recovery and Destruction Law, which took effect in April 2015.



### ? Ever have this problem?

- Increased power consumption
- Insufficient cooling (does not hit dew point)
- Abnormal stoppage
- Drainage to secondary side, air leakage

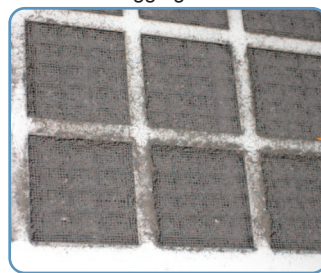
### ✓ POINT to CHECK

Condenser clogging  
Drain discharger malfunction

Air-cooled condenser



Dust filter clogging



The dust filter and condenser must be cleaned.



The condenser must be chemically cleaned.

Maintenance or replacement of the drain discharger is required.

# Desiccant air dryer

Be sure to maintain a low dew point through conscientious periodic inspection.

\* Dew point meters must be periodically calibrated.



## ? Ever have this problem?

- Decreased dehumidifying performance
- Worsened dew point display

## ✓ POINT to CHECK

Filter element deterioration  
Contamination with oil/debris  
Silencer clogging

Desiccant cylinder



Contaminated desiccant cylinder



The filter element must be replaced.

The desiccant must be replaced.

Silencer



Clogged silencer



The silencer media must be replaced.

**Others** Pressure fluctuations due to other component malfunctions (switching valve, etc.) may also decrease dehumidifying performance.

# Membrane air dryer

The membrane module must be replaced regularly. (Approx. every 3 years.)



## ? Ever have this problem?

- Decreased dehumidifying performance

## ✓ POINT to CHECK

Deterioration/damage to the membrane module and filter element

SD



Deteriorated SD

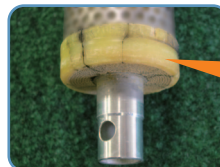


The membrane module and filter element must be replaced.

SD membrane module



Used SD membrane module



The membrane module must be replaced.



For customers using refrigeration air dryers/chillers (water cooling units)

Are you  
aware  
of this?

## The Fluorocarbons Recovery and Destruction Law

has taken effect as of **April 2015**.

CKD's "Refrigeration air dryers" and "Chillers (water cooling units)" are applicable as Type 1 special products, for which simple and periodic inspection is now compulsory.



Refrigeration air dryer



Chiller (Water cooling unit)

### Targets and frequency of inspection

Simple inspection (on advice from specialists)	
Components	All components
Inspection frequency	At least once every 3 months

Periodic inspection (carried out by a fully knowledgeable qualified expert)			
Components	Compressors/motors rated output		
	Air conditioners of 7.5 kW or more and less than 50 kW	Air conditioners of 50 kW or more	Freezers and refrigerators of 7.5 kW or more
Inspection frequency	At least once every 3 years	At least once every year	At least once every year

For example...

Neglected inspections leading to uncontrolled ejection of fluorocarbons are prohibited by law.

If an infraction takes place...

Punishment will be up to 1 year imprisonment or a maximum fine of 500,000 yen.

### Checkups of refrigeration air dryers and chillers subject to the Act on Fluorocarbons

## Dr. Main Line is at your side!

Make sure the refrigeration air dryers and chillers get their yearly checkup! CKD provides checkups (inspection/maintenance) via Dr. Main Lines throughout the country to keep your refrigeration air dryers and chillers at their peak performance.



### Main inspection/maintenance items

- Is the air dew point normal?
- Is there a refrigerant leak?
- Is the pressure normal?
- Is there any accumulated debris?
- Is the voltage normal?

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