

## October Tip of the Month:

# Routine Refrigeration Maintenance

When it comes to reliable refrigeration equipment, preventive maintenance is a crucial factor. Failure to properly maintain commercial refrigeration will almost always lead to costly repairs, loss of product, cause much higher utility bills and shortens life of equipment.

We try to preach the benefits of routine maintenance, but it is all too often ignored. For the handful of clients who routinely maintain their refrigeration equipment, the units are operating much more efficiently and have far fewer breakdowns than units that are not serviced regularly. We recommend a thorough maintenance inspection be done a minimum of twice per year.

**Routine maintenance plans reduce service calls, save electricity and extend the life of refrigeration equipment.**

### Problems Caused by Failure to Maintain Refrigeration Equipment

- Increased utility bills
- Burnt wiring due to increased amp draw
- Failure of fan motors caused by dirty coils
- Failure of thermostat due to increased amp draw
- Failure of compressor due to dirty coils
- Restriction of metering device caused by overheated & damaged refrigerant oil

### Benefits of Routine Maintenance

- Reduced electrical consumption
- Less equipment breakdown
- Lower service and repair costs
- Longer equipment life
- Fresher product
- Reduced product spoilage
- Decreases chance of emergency service due to neglect
- Decreases stress

## Case Study 1:

# Title of Case Study To Go Here

The following table is an example of two clients that we service, in which we used service records from 9/1/15 – 9/30/16 to gather data. This comparison is between two restaurants located in Lower Manhattan. One location (Restaurant #1) has had a routine maintenance schedule and the equipment is serviced quarterly. The second location (Restaurant #2) has never accepted a maintenance quote and has never had all the equipment cleaned and checked on a regular basis. They always call on the hottest days and nights, getting whatever piece of equipment fixed that needs immediate attention.

The table below will illustrate the importance of routine maintenance and the consequences of equipment neglect.

Establishment	Total # of Coolers & Freezers	Scheduled Maintenance	Non-Emergency Service Calls	Overtime Service Calls	Compressor Failures
Restaurant #1	11	Every 3 Months	16	2	2
Restaurant #2	14	None	28	6	4

This table clearly shows the benefits of a maintenance plan. Restaurant #1 has more total equipment than Restaurant #2, but has less service calls for the year. Restaurant #1 had two compressor failures as compared to the four at Restaurant #2. The overall cost of service for the year was much less at the client with a maintenance plan. The properly maintained equipment required far less electricity as well.

## Case Study 2:

# Title of Case Study To Go Here

With every new client that comes to AmeriCold, there is always a maintenance option available to them. Whether they choose to accept the offer is up to them, but all too often, those who do not have a maintenance plan wish they did.

Recently we received a call on a Saturday for emergency service, where the client's walk-in cooler broke down. A few months before this break down, we quoted this customer a full comprehensive maintenance plan. This maintenance, if performed, likely would have prevented the cooler in question from breaking down. The maintenance would definitely save the customer on energy usage & extend the life of the equipment.

### Have a Look at Our Quote Below for the Maintenance Work:

#	Product/Service	Description	Qty	Rate	Amount
1		Quoted maintenance on 12 commercial refrigeration units per trip including bar area, kitchen & basement			
2		Description: All air cooled condensers and drains will be pressure cleaned. Temperature and cycling will be checked. Door gaskets, closers & hinges will be inspected. Unit thermometer & insulation will be checked. Wiring and compressor will be inspected. Any parts or repairs found to be needed will be quoted separately. Any condenser coils that need degreasing will be quoted separately.			
3	Services	Maintenance of 12 refrigeration units per trip	1	482.50	482.50
4					
Subtotal of estimated charges:					482.50
Total:					<b>482.50</b>

Customer Message  
 Please contact us to approve job and order parts.

Unfortunately, the customer did not schedule or approve our refrigeration maintenance proposal.

## Case Study 2: *Continued*

As a result, their walk-in cooler was running at 63 degrees, which we diagnosed as a bad condenser fan motor. Most likely, the fan motor overheated due to the condenser coil being plugged with grease. The compressor was extremely overheated & tripping off on overload. We had to cool the compressor with ice, degrease the coil several times & replace the condenser fan motor. All this was done at our Saturday rate, which is 2 times our regular rate.

### Take a Look at the Invoice for Emergency Saturday Service:

#	Product/Service	Description	Qty	Rate	Amount
1		Continental 2 door cooler M#2R S#14767303 Saturday service			
2		Compressor overheated & going off on overload due to dirty condenser & bad condenser fan motor. Degreased condenser coil & replaced condenser fan motor. Cooled compressor off with ice.			
3	Services	condenser fan motor	1	78.00	78.00
4	Services	chemical coil cleaner	1	30.00	30.00
5	Services	ties / connectors	1	3.00	3.00
6	Services	Saturday service charge	1	173.25	173.25
7	Services	Saturday labor 3:30 - 5:45 PM	2.25	173.25	389.81
8		1 year part warranty on new condenser fan motor			
9		Note: Watch temperature. Compressor was strained due to bad condenser fan motor & dirty condenser coil.			
10					
Subtotal of new charges:					674.06

### Here is How it Breaks Down:

- The emergency service on the one cooler was almost \$200 more than the entire maintenance proposal for 12 Refrigeration Units.
- The other 11 Refrigeration Units are still overdue for maintenance.
- The compressor on cooler serviced has been severely strained & may fail soon.