

# Dillett Connection - Win a \$50.00 Visa Gift Card!

## DILLETT CONNECTION

4TH QUARTER 2016

### INSIDE THIS EDITION:

Chiller - What is it?

Modine Manufacturing Company - Made in the USA!

Automatic External Defibrillator

Win a \$50.00 Visa Gift Card!

## Happy Thanksgiving!

We have set our clocks back, voted in the elections, and now we are getting ready to buy our turkeys and start thinking about putting up our Christmas lights. It is hard to believe snow is around the corner.

It is the time of year when we start thinking about what we are thankful for so we wanted to let you know - we are thankful for all of our customers, vendors, employees, families, and friends. We have developed so many wonderful relationships over the years and we wanted to take this moment to say thank you to all of you.



### Chiller - What is it?

The short answer is a piece of equipment that supplies chilled water. But there is so much more.

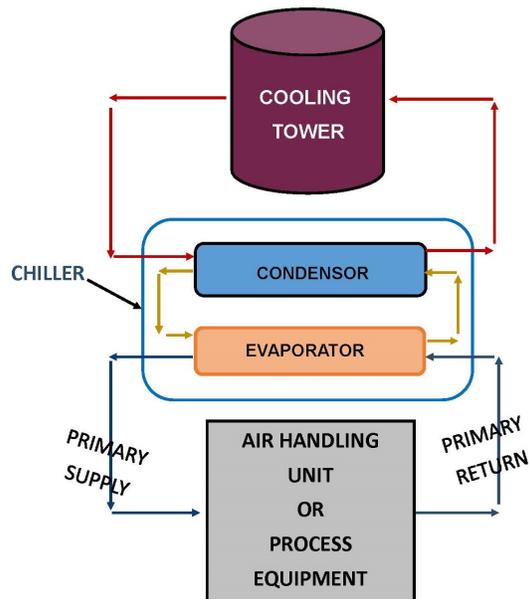
In order to provide the chilled water, the chiller needs to work in conjunction with other equipment. In the following example chilled water is supplied by a water-cooled chiller working in conjunction with a cooling tower and delivering

the chilled water to process equipment. We would like to give you an overview of how the system works and why it is important to maintain the equipment.

There are different processes in a building that need chilled water. The air handling unit that supplies cooling to your office is only one example. In industrial applications, some mechanical equipment use chilled water to keep parts of the equipment cool to avoid overheating.

The chiller / cooling tower / process equipment procedures consist of three "loops". Loop 1 - Water is pumped from the chiller's evaporator to the process equipment and back again. Loop 2 - Heat is absorbed from the chilled water into the chiller's evaporator and rejected out of the chiller's condenser into the cooling tower water. Loop 3 - Water is pumped from the cooling tower to the chiller's condenser and back again.

Loop 1 - Chiller's evaporator to process equipment. The water is pumped between the evaporator and the process equipment in a closed loop system. The water in the closed loop system should be chemically treated but does not require the same attention as the open loop system between the chiller's condenser and the cooling tower.



Loop 2 - Chiller's evaporator and condenser. The evaporator is a heat exchanger in which heat captured by the process water flow is transferred to the flow of refrigerant fluid. As the heat transfer takes place, the refrigerant evaporates, changing from a low-pressure liquid into a low-pressure vapor, while the temperature of the process water is reduced to the desired leaving water temperature.

Next, the low pressure vapor refrigerant flows to a compressor, which performs two functions. First, it removes refrigerant vapor from the evaporator and ensures that the pressure / temperature of the refrigerant in the evaporator refrigerant line remains low enough to absorb process heat at the correct rate.

Second, it raises the pressure / temperature of the outgoing refrigerant vapor to ensure that its temperature is high enough to release its heat when it reaches the condenser, where the refrigerant returns to a liquid state.

Loop 3 - Cooling tower to chiller's condenser. The water between the cooling tower and the chiller's condenser is an open system. Water is pumped from the cooling tower to the chiller's condenser to absorb heat and then is returned to the cooling tower where the heat is rejected to the atmosphere.



The water, which is supplied by the building's water source to the cooling tower to maintain a proper operating level, contains minerals and sediment normally found in water. Air is forced across the water flowing through the cooling tower to accelerate evaporation which removes the heat from the water. The minerals and sediments in the water supply, combined with the debris in the air, such as dust and dirt, will deposit on the condenser tubes over time reducing the ability to transfer heat from the condenser refrigerant to the cooling tower water which will reduce the capacity and efficiency of the chiller. To restore your chiller to a more efficient level of service the chiller tubes need to be cleaned annually.

If your chiller is shut down for the winter months - now is the time to schedule the annual maintenance. For chillers that are used for processes that run year-round, we will work around your schedule to find the best time to shut down your chiller to perform the necessary maintenance to return your chiller to optimal efficiency.

If you have any questions about your chiller, cooling tower, or process equipment (or any other equipment for that matter) don't hesitate to call us. We are here to answer all your equipment questions.

---

## FEATURED COMPANY...

### **Modine Manufacturing Company**

With the cold weather coming, our thoughts have turned to pulling out cold

weather jackets and mittens, making sure we have boots ready, and looking for the ice scrapers for our cars.

The coming cold weather has also turned our thoughts to furnaces, unit heaters, make-up air systems, boilers, and other equipment needed to keep the employees at our customer's facilities warm.

In thinking about these products, we wanted to acknowledge one of the companies that supplies some of these products and the fact that their products are listed on their website as being Made in the USA!

Modine Manufacturing Company not only makes their products in the USA - their headquarters are in Racine, Wisconsin!



Thanks Modine - for keeping us warm and for doing so with products Made in the USA!



---

## **SAFETY CORNER**

### **Automatic External Defibrillator - AED**

Many places of business now own a machine that can save someone's life. That machine is an Automatic External Defibrillator or more commonly known as an AED.

#### **What is an AED exactly?**

It is a computerized medical device that can check a person's heart rhythm. The machine recognizes a rhythm that requires a shock and it can advise the rescuer when a shock is needed. The AED uses voice prompts, lights, and text messages to tell the rescuer the steps to take.

These machines are very accurate and as a wonderful bonus, they are easy to use. With a few hours of training anyone can learn how to operate an AED safely.

Here are some common Questions and Answers associated with this device:

### **Why is it important to notify the local EMS office?**

It is important for the local EMS system to know where AEDs are located in the community.



In the event of a sudden cardiac arrest emergency, 9-1-1 dispatcher will know if there is an AED on the premises and will be able to notify the EMS system as well as the responders already on the scene.

### **If AEDs are so easy to use, who do people need formal training to use them?**

An AED operator must know how to recognize the signs of a sudden cardiac arrest, when to activate the EMS system, and how to perform CPR. It is also important for operators to receive formal training on the AED model they will use so that they become familiar with the device and are able to successfully operate it in an emergency. Training also teaches the operator how to avoid potentially hazardous situations.

### **Can anyone purchase an AED?**

AEDs are manufactured and sold under guidelines approved by the Food and Drug Administration (FDA). The FDA may require someone who purchases an AED to present a physician's prescription for the device.

### **How much does an AED cost?**

The price of an AED varies by make and model. Most AEDs cost between \$1,500 and \$2,000.

(The above information is from the American Heart Association, Inc.)

---

## **BREAK FOR FUN!**



You could win a \$50.00  
Visa Gift Card!

Visit our website for the rules and regulations for a contest ONLY for our  
Newsletter subscribers.

<http://dillettmechanical.com>

To enter the drawing email us at  
[DillettMechanicalToday@dillettmechanical.com](mailto:DillettMechanicalToday@dillettmechanical.com)  
with the words "Enter me into the drawing" in the subject line  
and your full name in the body of the email.

Contest beginning date is November 8th.

Contest ending date is November 16th.

Prize drawing date is November 21st.

Some restrictions apply.

Entering the contest constitutes your agreement  
to the contest rules and regulations.

Good Luck and Thanks for being a newsletter subscriber!

---

### Dillett Mechanical Service Mission Statement

"Offering the highest level of service as we continue to innovate and improve."

---



**Dillett Connection**  
**4th Quarter 2016**