



IS BUYING FROM YOUR COMPANY "HASSLE-LESS"?

Matthew Schneider

Many of you have probably heard the radio commercials for Hassless Mattress stores located in the Milwaukee suburbs of Brookfield, Greenfield, Germantown and Mequon. If you are not from Southeastern Wisconsin, Hassless Mattress describes itself as the "Employee Free Mattress Store" and their business model is pretty progressive. The mattress industry consumer data has steadily shown over time that consumers who want to purchase a mattress want to be able to try out a mattress to make sure it is comfortable the way they generally sleep. Frequently consumers want to lay on mattresses in the position that is most common for them and even with their spouse or significant other. Over and over again, the industry data pointed to the fact that one of the key reasons that consumers shied away from ultimately purchasing a new mattress was the overall "creepy" feeling that they got by being paraded around a store and hovered upon by a salesperson. Enter Hassless Mattress.

Hassless Mattress didn't ignore the industry data, they developed a business strategy and model to serve a customer need and reap the rewards. They opened up unmanned mattress stores in relatively prominent communities (Brookfield and Mequon are two of the most sought after zip codes in all of Southeastern Wisconsin) with no employees at all. The environment is set up to take away the "creepy" factor and inspire you to say yes to a purchase rather than no. I drive by a Hassless Mattress every day, so last week, on a whim, I decided to stop in and experience the process for myself. Truthfully, I was inspired by the simplicity.

The store location was easy to get to, inside of a strip mall facing the freeway. The door was unlocked. The approximately 1,500 square foot retail floor was well lit. There was some nice, soft music playing over the speakers. On the floor was probably twenty different queen size mattresses manufactured by recognizable, to me, brand names. Each mattress had a large sign hanging above it with an easy to understand "Firmness Rating" from 1 - 10. There were prices posted on each model, for all available sizes from twin to California king and an "Employee Free Savings" highlighted in red, clearly

indicating the money that you were saving from the other mattress outlets for the low overhead and lack of "creepy" factor. In addition, there was a giant sign painted on the wall indicating that if there were any questions or if you wanted to speak to someone directly, you could call or text a specific number. In the corner was a computer kiosk that made selecting your mattress, entering your delivery address, preferred delivery date and selecting your method of payment easy.

I found myself laying on the mattresses. Believe it or not, I used the several minutes I was in the store to relax from the hectic day I had just endured. The images of having one of those cool beds that you can sit up in and elevate your feet while you watch TV began to seem like an awesome addition to my bedroom. I went to the computer and began to investigate how to make a purchase and "bam" I was kicked out of the system. So much for hassle-less. I pulled out my phone and sent a quick text to the number on the wall asking for the username and password to reboot the computer in the Germantown showroom. Ten seconds went by and my cellphone was already ringing. It was Weston. The owner of Hassless Mattress. At my service. Honestly I was a bit shocked at the quick response and sheepishly had to explain to him that I didn't really want to buy anything, I was just intrigued by his business model. He thanked me for my compliments and assured me I could call him anytime. In fact, I received a call from him the very next day, making sure that I had all of my questions regarding Hassless Mattress answered and if there was any way he could get me to reconsider a mattress purchase. Overall, my experience was excellent and when I decide to buy, his store will be the first place I go. Bravo Weston. Bravo.

So at this point you are probably asking yourself "what does mattresses have to do with furnaces and condensing units" and my reply would be everything. Yes, I realize that the products we sell cannot be easily marketed without a certain amount of personal interaction. I am



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not advocating for eliminating our staff, but we can still learn a retailing lesson from Hassless Mattress. You see Weston is an individual who didn't ignore consumer data. In fact, he embraced it. Hassless Mattress carved out a niche in a crowded mattress marketplace by listening to the consumer, doing something completely different than the competition, built a business model that (dare I say) is very modern and forward thinking and judging by his quick expansion is reaping the rewards.

Monroe Equipment is prepared to help you navigate and maybe look at our business in that more modern and forward thinking way. I am sure that you have heard me talk about industry consumer research data before and we consider this data to be the most important step towards creating a consumer friendly, retail organization.

Consumers have clearly defined what they are looking for when buying a heating and cooling system and it

doesn't include brand affiliation, money spent on marketing or if you are a family owned and operated business. Instead, they consistently mention ease of doing business, level of overall knowledge, community involvement and strong partnerships with their friends, family and neighbors as traits that they are looking for in their contractor partner. Year after year, consumer sentiment for smart, innovative business people trumps mega-manufacturer dealer programs more and more.

The knowledge that we gain from consumer data is priceless and the anti-brand story with which it tells is the exact reason why the mega-manufacturers keep it from you. In 2016, let's have a thoughtful conversation on how we can grow our businesses through data and innovation. I challenge you to ask yourself if you have any Weston's on your team? Do you make doing business with your company Hassle-Less?

THE PHASE OUT OF R22 DRY CHARGE UNITS

Ken Jung

It was just a matter of time and now the time has caught up with us. The Department of Energy (DOE) has published new test procedure guidance, which effectively phases out the manufacturer of dry charge equipment.

From a rather lengthy article, the DOE information can be broken down into three main points.

1. Manufacturers must comply with a new test procedure and stop the production of dry charge equipment by February 1, 2016.
2. Manufacturers, distributors and contractors will have an unlimited “sell-through” period for any dry charge equipment in inventory.
3. DOE may investigate and seek civil penalties from manufacturers who produce or distribute any newly introduced dry charge equipment after the publication of the DOE test procedure supplemental notice of public rule making.

As of right now, for a manufacturer to build a dry charge unit after the February 1, 2016 date, they will have to comply with a new set of efficiency testing requirements or seek a waiver from the DOE.

Take into consideration that February 1, 2016 is just under a month away. Based on the time it takes for an equipment manufacturer to develop, design, test and start production on a new piece of equipment, the fast approaching deadline will probably not allow this to happen. Secondly, the manufacturer can apply to the DOE for a waiver. The possibility that the Department of Energy will issue waivers allowing production of dry charge equipment, thereby going against their own policy, will not be likely to occur.

All remaining inventory may be sold without a deadline date. So as it is sold, inventory will be depleted from our warehouse and can only be replaced if the manufacturer still has existing unit(s) in stock. Once depleted, it's gone.

The third point listed above only applies to manufacturers that might violate the DOE rulings. The information provided above has just recently been made publicly available, somewhat of a unique time release by the DOE. The intent of this article is to make you aware of the changes that will quickly effect our air conditioning market. Could the DOE change their ruling or postpone the date, sure, but I wouldn't bet on it.

UNDERSTANDING Cv Ratings

Ken Jung

In the world of Hydronics (water flow and heat transfer), some things are easy to understand and grasp, other topics are not. We can easily grasp the concept that heated hot water in a piping loop will rise, slowly cool (give off heat energy) and then fall as the water cools only to be re-heated again and the circular process continues. In the above scenario, as long as the piping loop is large enough in diameter there will be very little resistance applied to the flow of water. This will allow the water molecules to move easily – gravity flow is created.

Once the hydronic design starts to change; smaller pipes, smaller heat emitting devices (base board or in-floor tubing – vs – radiators), additional valves (ball, gate, zone valves), fittings and other system accessories, suddenly the water flow is greatly reduced and restricted. It now becomes a requirement to add a pump in order to make the water move or flow through the sealed piping system loop and overcome the resistance (pump head) that all of the additional accessories create.

It is very important that flow and the restriction to flow are evaluated in a hydronic system. The proper pump must be selected – not too large (inefficient), not too small (over loaded and under performs), but a size that is just right for the application.

If we look at any of the engineering data provided for pipe, fittings, valves, etc.; specific information relating to the “equivalent length” and/or “pressure drop” will be provided in the manufacturing data for each item. But, when it comes to valves, especially zone valves, the data is somewhat different. This is where the Cv rating (Cv = flow coefficient) of the device becomes a very important value to look at and understand.

Picture a zone valve in your mind. With most zone valve manufacturers, the valve body design is somewhat the same. I am picturing a 1” diameter pipe coming into a “reverse flare type fitting”, this reduces down to the size of the valve body opening, only to then re-open to whatever the outlet pipe size happens to be. Manufacturers test and list a Cv value so that the flow rate through the valve can be determined at a specific pressure drop.

To give this a true definition, *the Cv or flow coefficient of a valve or device is a measurement of the flow, in volume (US gallons) of water at 60° F that will flow per minute through a valve with a pressure drop of 1 psi across the valve.*

Mathematically the flow coefficient formula is written as: (Wikipedia)

$$Cv = Q \sqrt{\frac{SG}{\Delta P}}$$

Where Cv = flow coefficient or flow capacity rating of the valve.

Q = Rate of flow (US gallons per minute “GPM”)

SG = Specific gravity of the fluid flowing through the valve (Water = 1)

ΔP = Pressure drop across the valve (PSI)

The Cv data is important information, but more typically for field applications we would be interested in what the ΔP part of the equation would be so that we can incorporate that value into determining what our pump size needs to be. We will need to take the solved or plotted psi value from the graph data provided by the valve manufacture and convert that to feet of head or pressure drop that our pump needs to overcome. The graph of points that would be plotted for varying flows through the valve would produce a non-linear graph, but manufacturers re-work the data so that it can be displayed in an easier graph pattern to understand and interpret.

Once we know what the psi pressure drop through the valve will be at the desired gpm flow rate, the math conversion from psi to feet of head is easy. Simply multiply by 2.31.

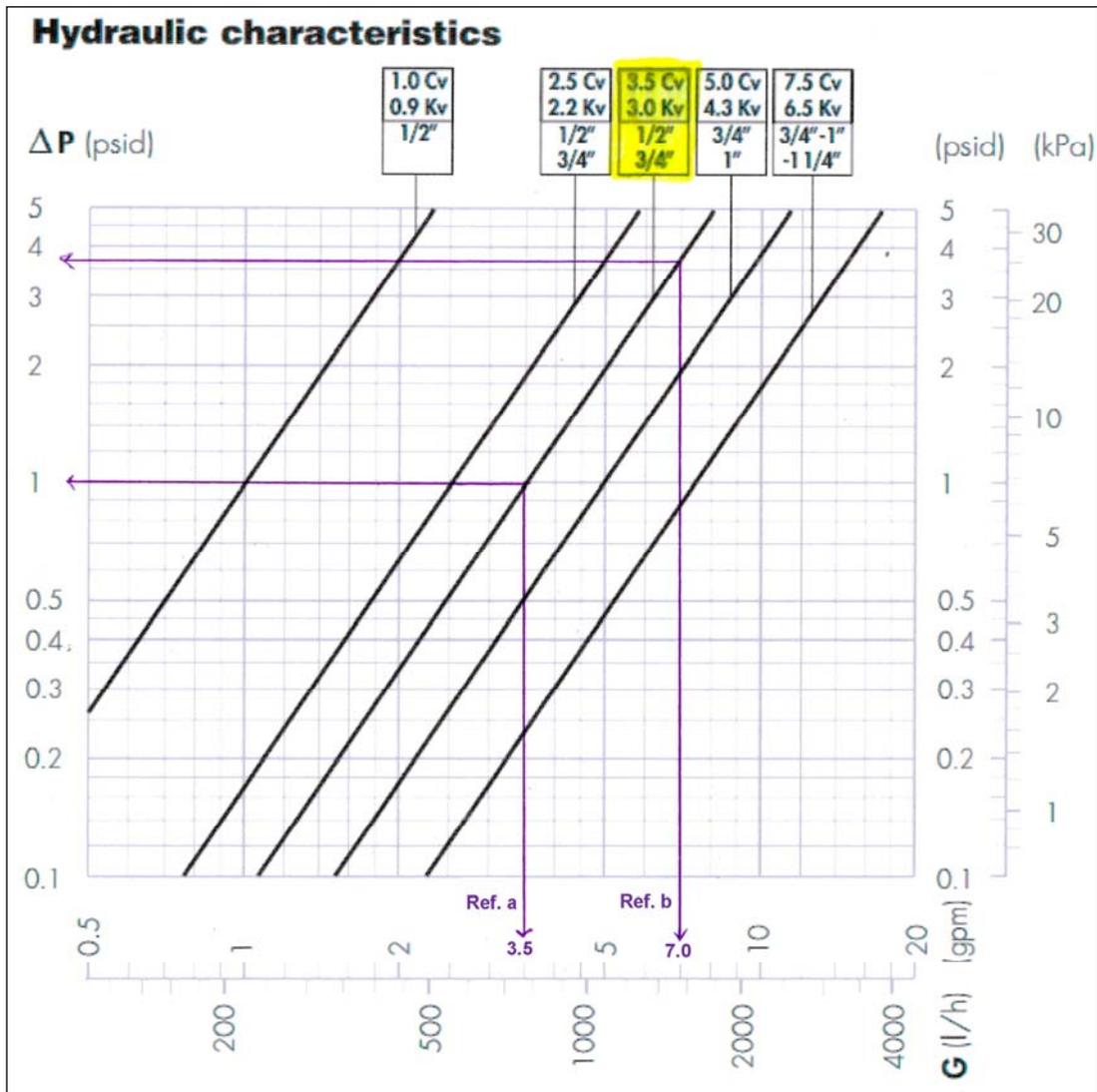
Looking at the chart on page 4, I have selected a ¾” zone valve that is rated at 3.5 Cv. This means that at 3.5 gpm of flow there will be a 1 psi pressure drop created through the valve (Ref. a). In my hypothetical example 3.5 gpm is not the flow rate I need. Instead my hydronic application requires 7 gpm of water flow...looking at the chart of ΔP numbers on the left you can see the distance between the numbers is not equal (non-linear).

At a flow rate of 7 gpm, the psi pressure drop through the valve now becomes 3.7 psi (Ref. b). When converted to feet of head, this 3.7psi pressure drop X 2.31 now becomes equal to 8.55 feet of head that the pump must overcome...we still need to add the resistance to flow from all of the additional pipe, fittings, boiler or domestic tank and other accessories too.

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This is often a missed item when sizing and selecting the proper pump(s) for a specific hydronic application. Many times the pump will be close, but will be just short of being able to supply the required flow rate needed to make the heating zone function properly...it is not one size fits all!

All resistance to flow, including the Cv values of valves need to be considered to insure that your hydronic system will function properly.



2016 COMMERCIAL BUILDING CODE REFRESHER

Ben Lane

The State of Wisconsin Department of Safety and Professional Services, in conjunction with the University of Wisconsin-Madison, is hosting the 45th Annual Wisconsin Commercial Building Code Refresher February 15 – 17th in Madison, WI.

2016 will be a key year with the state expected to move from the 2009 to 2015 International Codes. The program will focus on key changes between the 2009 and 2015 Codes. Anyone actively engaged in the design, construction or remodeling of commercial buildings within the state is strongly encouraged to attend. Please feel free to contact me at 262-783-8190 or blane@monroeequipment.com for additional information.

UL RATED FLOOR/CEILING ASSEMBLIES

Ben Lane

Most of us who've been involved in the design and construction of multi-family commercial buildings over the past 10 years are familiar with the code requirement to provide ceiling radiation dampers at all of our grilles, registers and diffusers located in a UL rated floor/ceiling assembly. Likewise, most of us are familiar with the exception in the code that allows for the installation of an exhaust fan within the assembly, provided they are 100 square inches or less and the exhaust ducting does not pass through any other dwelling units or tenant spaces.

What you may or may not be familiar with is the UL listing of each floor/ceiling assembly specifically. The architect or building designer should be providing this information on the architectural plans, but in my experience it can be rather hard to come by. Once the UL number is determined, you can search the UL database and you will find a listing all of the different components that go together to make up this assembly. This is not a generic listing of the thickness of dry-wall or how many layers are required, but rather a manufacturer and model specific set of specifications dictating how this assembly is to be constructed and what specific materials are to be used. If the UL listing requires ABC model dry-wall by XYZ Drywall Company you can't just run to Home Depot and install any ordinary drywall off the shelf, it must be what is specified. Likewise, as this relates to HVAC, the radiation dampers that are to be used must be listed and perhaps even more surprisingly, only the exhaust fans that are listed can be installed.

Through my research into the topic, I have found that the products approved for use can vary widely by the UL listing. One specific UL listing I found had only a single fan make and model listed for use and the listing required the installation of a radiation damper along with the fan. Because this was in contradiction with what state code would require, I went to the state for clarification on the issue and they confirmed my suspicions. Since the UL listing was more restrictive than what state code would allow, the requirements of the UL listing must be followed. In this particular case, only this specific fan could be installed and only along with a radiation damper installed at the ceiling line.

Since this issue has such potential for economic impact I would strongly recommend researching any and all UL or fire resistance ratings on all future projects to first confirm that all of the products you are intending to use are in fact approved to be installed. If you need help navigating this process or have concerns on any specific projects please don't hesitate to call for assistance.

JOLENE OLSON RETIRES

Lynn Beine

After 15 years of service with Monroe Equipment, Jolene Olson has retired! Jolene went part-time last year to help "ease" into this retirement thing. Obviously it has agreed with her enough for her to take the final plunge into retirement.

Jolene began working at Monroe Equipment in 2000. She was responsible for billing, factory warranties, literature and anything else thrown her way.

Jolene plans on keeping busy in retirement. She plans to keep on quilting and gardening to keep her busy. She also plans to travel with her husband. With her grown children based in California, I am sure she will be on the west coast more often!

Good luck Jolene. You will be missed!



GETTING TO KNOW YOU

Barb Beckett

Met Todd R. Raymond, our newest Territory Manager (TM) that covers the Fox Valley area and portions of the Upper Peninsula. Todd grew up in Oshkosh so he knows the area well. He is enjoying meeting new dealers and customers.

Todd started in the HVAC field in 1986 as an installer. He got into a service tech position, then became a service manager, working in that capacity for two different companies until 2004. He then went to work for a distributor in Appleton as a Technical Support Manager, and eventually became their TM. Todd joined Monroe Equipment in October of 2015.

Todd is big into backyard BBQ's and has several different smokers. His favorite thing to smoke is pork shoulder for making pulled pork. He loves it when the neighbors meander over when they smell the cooker smoking away. What a terrific way to meet your neighbors!

Todd and his wife Joan are avid motorcyclists and love to travel on his Honda ST1300 touring cycle. They plan on taking their first big trip to Niagara Falls this summer. Todd lives near Lake Winnebago where he and his wife often fish from their kayaks. So far, the largest fish he has caught is a 38" Northern. They also enjoy camping on Legend Lake near Shawano where they set up a travel trailer for the summer. Their daughter, her husband and 2 ½ year old grandson often join them.



Todd Raymond

PARTS DEPARTMENT

Rich Taylor

Happy New Year from all of us in the Parts Department. Make it your New Year's resolution to stop in and see our new Viessmann Boiler display. And as always, have a safe and prosperous 2016.

Upcoming Events

JANUARY 13 - *Oshkosh Training Center*
Viessmann Boiler Training

JANUARY 20 - *Menomonee Falls Training Center*
HVAC Electrical Training

JANUARY 26 - *Menomonee Falls Training Center*
HVAC Electrical Training

JANUARY 27 - *Oshkosh Training Center*
Bosch Greenstar Boiler Training

FEBRUARY 3 - *Menomonee Falls Training Center*
Comfort Sync & Sync Zoning Training

FEBRUARY 6-13 - *Puerto Vallarta, Mexico*
Dealer Incentive Trip

FEBRUARY 10 - *Oshkosh Training Center*
HVAC Electrical Training

MARCH 26 - *Menomonee Falls & Oshkosh*
Closed for Easter

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