HOSHIZAKI TECHNICAL SUPPORT
TECH -TIPS

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R-404A UNITS TECHNICAL DATA

Hoshizaki is well into the process of converting our product line over to R-404A refrigerant. Several R-404A models are now available for purchase. The technical data needed for service diagnosis is included in the individual service manual for each product. As service manuals are published, they are made available through the literature department at your local distributor. There is a nominal charge for these manuals.

To speed up the process of getting this valuable information to the field, the Technical Support Department provides the preliminary technical data needed for service diagnosis through Service Bulletins. Service bulletins are mailed to our distributors as soon as they are published. They are published on an "as needed" basis before the individual service manuals are made available. Distributors make bulletins available to their service dealers either through mailings or across the parts counter. Copies of each new bulletin are also mailed to HCSR's quarterly from the Technical Support Department. Service Bulletins published after 1997 (starting with SB97----) are available by e-mail when requested through our technical address… techsupport@hoshizaki.com.

Tech Support also publishes a Tech Specs technician's pocket guide that provides installation and service information on Hoshizaki ice machines. Development of a Tech Specs Guide for R-404A models is underway. At this time, we do not have enough models available for a complete guide. We will make one available as soon as possible. It will be color-coded orange for R-404A refrigerant so be on the lookout for it in the next few months.

A list of the R-404A service bulletins available at

this time is provided below. If you need one, request it via the channels previously mentioned.

SB98-0002 – KM-150BAF
SB98-0009 – KM-1300SAF/SRF
SB98-0011 – KM-1600SRF/SRF3
SB98-0012 – KM-2000SWF3/SRF3
SB98-0013 – DCM-240BAF
SB98-0014 – F-1000M_F (ALL)
SB98-0015 – F-800MAF/MWF
SB98-0016 – DCM-500BAF

Service Bulletins for other R-404A models will be published, as the technical data becomes available.

SERVICE TRAINING UPDATE

The 1999 training season is now underway. Hoshizaki provides four-hour factory seminars across the US during the beginning of each year. The seminars are scheduled through your local Hoshizaki distributor.

Each year the basic seminar is updated to include any changes in our products. New models are included in the seminars and a thorough explanation of the operational sequence is covered. Service seminar handouts provide updated technical information. Since you may not work on a Hoshizaki product every day, you will find this review and update very helpful. This is

especially true with the recent change over to R-404A refrigerant. Some model numbers have changed and the ice machine bypass controls have been eliminated.

Contact your distributor for the time and location of the seminar nearest you and register to attend. Our HCSR's should remember that participating in the annual seminars is a factory requirement.

Hoshizaki also offers a 2 day advanced seminar for those who have attended the basic seminar. These in-depth seminars are held at the factory and in select locations across the nation. The schedule and registration forms for the Advanced Seminar are also available through your local distributor. There is no cost for attending an Advanced Seminar. However, you are responsible for your travel, room, and food expenses. We limit the class size to 25 technicians in the Advanced Seminars to allow for a better training atmosphere. Classes fill quickly so if you are interested, check the schedule and register.

We look forward to seeing you at a Hoshizaki Service Seminar in the near future.

SERVICE Q & A

Question: My question concerns ice machine production. It seems that each piece of literature that I look at has a different production listed for the same model number. Why are the production specifications listed differently on sales specs, performance data, and ARI ratings?

Answer by Danny Moore: Different production ratings can be confusing however, it is likely that all the different ratings are correct if you consider the rating conditions in each case. To verify the listed production, check the numbers against the actual rated conditions on the performance data chart that is available for each model. You will find a detailed performance data chart in the service manual that is published for each individual model. This detailed chart is also included in the service bulletin published for that model.

It is important to understand that air and water temperature affect the production of an ice machine. As these temperatures increase, the production will decrease and vise versa. During the initial development of a specific model, the pilot units are tested under several different conditions (air and water temperatures) to determine the performance characteristics. This data is charted and the performance data chart is developed. This chart includes production ratings, freeze times, harvest times, electrical and water consumption, and system pressures, all under varying conditions.

Each different piece of literature that you review is designed for a specific purpose and the rating conditions are chosen to fit the application. For example: A sales specification sheet is designed to show a customer unit design, size, layout of electrical and water connections, and to highlight product value. The production ratings are typically listed at optimum conditions of 50°F water and 70°F air. This is standard for any manufacturer's ice machine sales specification sheets. You will usually find an abbreviated production chart on the back of the specification sheet. This is so that the salesman can explain that less production should be expected in higher temperature conditions.

The ARI rating book provides the industry with a look at cuber production, water and electrical consumption at higher operating conditions of 70°F water and 90°F air. This is a more realistic look at what the ice machine will do in a typical application like a restaurant kitchen. ARI provides the information in a format which shows the electrical and water consumption for 100 pounds of ice production at their rating conditions. Their testing is consistent for every ice machine listed. Since this rating booklet places the equipment on a level playing field, it is generally used to compare different manufacturer's actual performance.

To find the actual production for the unit you are servicing, you need to know what the actual conditions are in that specific location. Guessing the air and water temperature will result in a "guestimate" of production. Once you have good air and water temperature data, check the performance data chart for your conditions.

There you will find accurate production and diagnostic information which is the key to providing high quality service.

COMING NEXT MONTH...

1. Medium Temp Reach-In Operation
2. New DCM Models
3. Service Q & A