



Ice Logo Installation, Removal and Storage Guideline

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Building Community Since 1947

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Introduction

Artificial ice surfaces painted white create a perfect canvass for self-promotion, general advertising or revenue generation. However, proper logo installation requires a clear understanding of the various methods and options available for ice logos as well as a sound knowledge of the science of artificial ice making and maintenance. Improper installation methods and materials can pose unnecessary risks by creating an unsafe skating surface or create a heat transfer barrier that can increase energy costs. Undertaking any ice logo installation takes careful planning and adequate time to successfully complete the process. The following guideline will help ice technicians better understand what to expect when installing ice logos in their facilities.

Ice Logos: A Brief History

In an effort to recognize their sponsors and supporters, the curling industry was the first to utilize the ice surface for advertising purposes. Out of these humble beginnings of improving customer relations, a multi-million dollar sports advertising industry emerged.



When the first ice logos were installed in a curling sheet many years ago there was no real safety or operational concerns. The advertising was usually placed close to the primary spectator viewing area. Ice depth was not a safety issue as there were no skaters or deep cutting ice resurfacing equipment on these ice sheets. As ice rink managers peered into the curling facilities they began to realize the revenue potential for their own buildings and the ice logo concept began to migrate into skating rinks.

This transition was not seamless as facility managers began to experiment with the different methods and materials that became available in the marketplace.

Bringing the Ice to Life

Doug Moore (1931 – 1996) founder of Jet Ice Ltd. was a pioneer in the development of ice paint and water treatment systems for ice surfaces worldwide and today is considered the founding father of quality artificial white ice/markings and ice logo technologies.

In his early years, he passed up a promising opportunity as a professional goaltender to pursue an engineering degree. While also carrying out his responsibilities as the Chief Engineer of Maple Leaf Gardens, Doug spent many hours at the local arena assisting operators in perfecting their ice surface. He was heavily involved in working behind the scenes, where hard work is often unrecognized and overlooked.

Doug's success was due to his simple love of the sport and kindly spirit of sharing his knowledge with others. He encouraged other rink managers through his many seminars and teaching clinics. Doug Moore's revolutionary ice making theories, technologies and practices remain standards of the ice making industry today.



Doug invested significant time and resources in the early development of ice logo materials and installation methods. After Doug's passing, Master Ice Painter Dave Loverock continues with this practical approach. There isn't anyone working in the ice industry today who knows as much about the trials and tribulations involved in ice logo use than

Dave Loverock (Jet Ice Ltd.) Dave has installed and helped to troubleshoot hundreds of ice logo installations using different materials and installation methods under a variety of conditions



Like Doug, Dave and Jet Ice’s team of ice technicians willingly and diligently share practical knowledge through hands on training elevating the position of icemaker to the respectable level of professionalism it enjoys today. This practical experience is a testament to Jet Ice Ltd.’s continued commitment to move the artificial ice industry forward.

The Basics of Ice Logo Installation

A typical ice sheet will have several layers of water applied to the surface creating a bond between the ice sheet and the base floor. Up to three (3) coats of white ice paint are then applied to the first layer of ice. Once complete, the ice technician then applies several layers of fine mists of cold water on top of the fresh white ice paint. This layer of cold water creates a slight barrier between the white paint and ice markings that are to be applied.

This barrier provides two primary functions 1) it gives the ice painter a smooth working surface with no cracks or imperfections and, 2) it provides a buffer that will allow for easy clean-up of coloured paint without disrupting the white base paint if it becomes spilled during the ice painting process. If logos are to be installed, they too should also be at this same depth as it then provides a specific point of reference for the ice technician if ever called into question.

Tip:

- When the ice logo installation process carries over to a second day of ice in activities, it is recommended that a small amount of water be applied to the surface in order to remove any frost build-up that may form overnight. This will help ensure quality installations.

When a portion of any ice marking is removed through the ice maintenance process it should be considered a potential operational liability. A standard artificial ice sheet will hold 1.5 inches of solid ice. The white ice paint, markings and logos should all be installed in the fresh ice at a level that is no higher than .5-inch leaving 1-inch of ice on top of the paint and or textiles. Ice technicians must be aware that anytime a goal crease, sport marking or logo is removed during the ice resurfacing process that skater safety is at “high” risk. It is strongly recommended that a skating surface be closed until an adequate ice level is restored.

Paper and Pounce Stencils

The paper and pounce method continues to be effectively used throughout the industry. It is a simple method of taking a large piece of paper and projecting an image of whatever design the ice maker wishes to place on the ice. Once the image is traced, a series of small holes are then punctured through the paper along the traced lines. This will allow for a small amount of “blue” carpenter’s chalk to be sprinkled on the paper and moved around with a typical house hold dust mop to penetrate the paper leaving an outline of the image on the ice surface.



Tips:

- Try not to walk on any part of a paper logo.
- You can apply a small amount of water or hockey pucks to the corners of a paper logo to help hold it in place.
- Use blue carpenter’s chalk as the black and red coloured chalks have more of a tendency to float particles in the air.
- Once chalk has been applied, carefully remove the paper logo trying not to spread carpenters chalk on the ice.
- Dry the paper logo and store in a dry/cool place and they will give you years of use.



As you can see in the above there was too much carpenter’s chalk applied between the hound’s legs.

Tips:

- A small amount of chalk goes a long way. Freeze in the chalk as to not push it around with the paint.
- Always paint light colours first as darker colours will easily cover up any painting mistakes.

- The red line in most rule books is stated as being uninterrupted from one side of dasherboard to the other. It does not have to be solid as a 2in. line on both sides of the red line without filling in the middle; this is deemed acceptable. Prior to making a decision of not having the red line intersect, a centre ice logo should be carefully researched with all user groups.
- The centre ice face off dot which is painted blue and 1ft in diameter is usually identified in most hockey rule books – more research may be required.



Direct Projection Method

This method involves the use of projection equipment suspended above the ice (often using on-site lift equipment). The ice painter first copies the intended logo onto an inexpensive transparency. The copy is placed on the projector and hoisted into the air projecting the image onto the ice where it can then be traced with a magic marker. This method allows the ice maker to modify artwork up until the last minute.

Free Hand Ice Letters

An ice maker can become an artist using this simple template. The one shown in the next photo is made of rubber but a piece of cardboard will also work. The ice painter can easily write any desired text (i.e. facility name, greeting, announcement etc.) to enhance the layout of their building.



A square no less than 24in. x 24in. has an internal square of no less than 18in. x 18in. cut of the centre; it can then be placed on the ice, usually on the centre ice 30ft circle, and a letter hand drawn with a magic marker.



The square template is then moved using the template as the appropriate spacer for the next letter. Once all letters are drawn on the ice they then can be quickly painted using a 2in. brush and warm paint of colours of your choice



Tips:

- The letters W and M should be spaced and marked to paint to the outside as these letters are wider and the letter "I" is marked to the left and spaced accordingly.
- For best results start in the middle of the word you are spelling and work side to side so that the letters are placed as even as possible.
- Double check any spelling prior to painting.
- Avoid small fonts/lettering - anything less than 18in. becomes visually unappealing and is not legible from the patron seating areas.
- Poor water quality and/or ice build-up will cloud your logos making them visually unappealing.
- Try not to paint on the center line as some letters get lost.

Textile and Fabric Logo Materials



Textile and fabric logos have changed the industry. They are colourful, vibrant and easy to install. A variety of materials have been installed in ice with some of them resulting in poor ice conditions forcing stoppage of play. At times the ice maker failed to put the logo at safe depth in the ice or failed to remove air that got trapped under the logo during the installation process which resulted in a skater trip hazard. While some materials such as vinyl or plastics trapped air under the material and as the ice warmed the air began to move causing the logo to "pop" and migrate to the surface creating a trip hazard.

As suggested earlier in this guideline, some logos will create a natural heat transfer barrier resulting in warm spots on the ice that can cause a puck to slow as it passes over it. This same barrier have an impact on operating costs as the refrigeration system must run longer in order to maintain a quality ice surface. Using quality ice paint provides no such barrier while new textile logos have little to no barrier effect.



It is important to research ice logo materials and methods prior to making any logo purchase.

Tips:

- When you attempt to “wet out” paper lines or logos on a cold sheet of ice an unusual thing occurs; in most cases the water below and above the paper freezes immediately. What you are left with is a thin layer of air or a bubble entrapped in the paper or directly underneath. This may go unnoticed during installation; however, over the course of a 2-3 week period a white pock mark will appear. This is the air attempting to escape from the solution.
- To reduce the amount of air that becomes entrapped try placing 2-3 table spoons of TSP in 5 gallons of warm water to assist in a wetting out the paper prior to it freezing. This will help reduce air entrapment at this stage of the installation.

Creating NASCAR or Carnival Ice

How many ice logos are too many? This question can only be answered by those who operate the rink. Too many logos are a distraction to the game at play and will reduce the ability to follow the puck along the ice surface. Some European operations have covered the ice so effectively that it is hard to distinguish the players. **More is not always better!**

Currently, there are little or no obligations to be met in most sporting rule books. Goalie site lines should be kept clear while dark logos in the attack zones should be avoided to help prevent losing the puck, ring or ball loss to the naked eye. Placing any type of logo in a goal crease area should be avoided.

Some leagues request that no logos be placed in the attack zone areas but in the end the facility manager must strive to be fiscally responsible while balancing the requirements of all ice users.



Ice Logo Replacement/Removal

When ice logos require removal or replacement after initial installation, the ice must allow adequate time to remove the logo and repair the ice surface. A minimum of 12 hours can be expected to complete this task from start to finish according to procedures. *Keep in mind that ambient air, ice surface and water temperature are all factors to consider when rebuilding the ice surface.*

NOTE: Remember that the white paint and logo will both be installed almost at the same depth. A few light sprays of cold water will help protect the white paint in case of a marking colour spill.



Painted logos are best replaced by painting over them. The logo area should be scraped down using the ice resurfacer. The driver will continually move over the area dropping and lifting the conditioner making a “gouged out” area in the ice at the logo location. Once the gouge is near the painted logo the ice technician can begin to spray the logo using a typical garden sprayer with mixed white ice paint. The objective is to cover up the logo while feathering in the new white paint to the original white paint installation. Once the old logo is “whited out” a few coats of cold water should be applied to seal the logo in place.

Once frozen, a new logo can be installed or the process can simply be continued until a safe ice depth is created.

Textile/Fabric Logo

The introduction of textile or fabric logo materials has revolutionized ice branding and marketing opportunities in skating rinks around the world. ORFA Training partner, Jet Ice Ltd. continues to lead the industry in ice related products and services. Choosing the right material is the key to easy

installation [Refer to: ORFA Best Practices for Logo Installation];
http://www.orfa.com/Resources/Documents/librarydocs/guides_bp/Ice%20Logo%20Installation%20Final%202012.pdf

Removing a textile logo can be accomplished with a little care. Professional ice maker, Dave Loverock shares that by following these 4 easy steps, an ice technician can easily recapture the material allowing the facility to reuse their logos.

1. The ice maker must know the depth at which the logo was installed and then carefully cut the ice away using the ice resurfacer to a level where no damage to the logo material will occur.
2. Once this depth is reached, fill the ice resurfacer, or a clean 20 litre (5-gal) plastic garbage container with hot water and get it safely to the logo location – dumping the water directly on top of the logo trapped in the ice.
 - a. Some ice technicians have used a skill saw and cut the ice almost to the rink floor depth. Taking a hose they apply hot water directly over the logo and around the edges allowing the cuts in the ice to take hot water down and then under the logo. The water is left to sit with more water being applied as required. The ice technician then walks on the logo to allow movement and more hot water to penetrate. NOTE: Be very careful walking on the wet area as it may be an extreme slip hazard.
3. Once the area has melted, return to the logo lifting a corner softly pulling up on the material being carefully as to not “stretch” it. Some logos can be stretched slightly during the removal allowing for some contortion to occur.
4. Remove the logo from ice surface, lay on a smooth, clean surface, spray with water, tension out any wrinkles by squeegeeing off excess water, let dry, roll up, and store the tube flat. Standing the tube up will cause the material to wrinkle making it hard to reuse.

General Tips to Ice Logo Installation

Proper planning and preparation are essential for operational success. Ice makers need to be prepared to carry out all ice making and maintenance procedures. Prior to any ice logo installation/repair ensure that you have the right equipment to carry out this task including quality ice paint and a variety of quality brushes, paint rollers, paint stick all of which are essential for the job. Review the product manufacturer’s installation instructions and research local league rule books for any limitations to logo installation. You are now well prepared for the job.

- Cold and dry buildings are vital for quality logo installations.
- Placing logos within a blue or red line will soon disappear to the naked eye and should be avoided.
- Keep to exact corporate identity colours (Coke and Pepsi will not accept a variation to their corporate branding).
- Simple is always better – the IBM or Nike logo are visually appealing and easy to install.
- Avoid dark colours (black/brown) on large logos will end up looking like a big blob on the ice at high distances.
- Colour differential can make a big impact on logo appearance, e.g. yellow lettering with a black outline is far more effective than a yellow letter with no outline.
- Avoid letters that too small; less than 18 inches in height will soon get visually lost in the white canvass.
- Research your sightline limitations and keep the lettering at least 4ft out from the dasherboard.

Conclusion

Ice logo installations can improve the overall appearance of a plain sheet of white ice while providing facility owners with an ongoing source of revenue. A commitment to safety and quality ice making and maintenance procedures is essential for all professional ice technicians. This takes knowledge and understanding of industry accepted methods and operational techniques.

How Can We Help?

The ORFA is proud of an enduring training partnership with Jet Ice Ltd. As leaders in the ice making industry, the Jet Ice team continues to

support Doug Moore's legacy demonstrated in **ORFA Ice Making and Painting Technologies (IMPT) training**. The Jet ice crew is always on hand to provide professional on-ice demonstrations of logo installation and offer sound advice on acceptable methods and tips. The **IMPT** is a key component of the **ORFA Certified Ice Technician (CIT) professional designation**. For more information visit

<http://www.orfa.com/designations/cit>

Visit the **Jet Ice Ltd.** web site for more information on new ice logo products and services

<http://www.jetice.com/>