



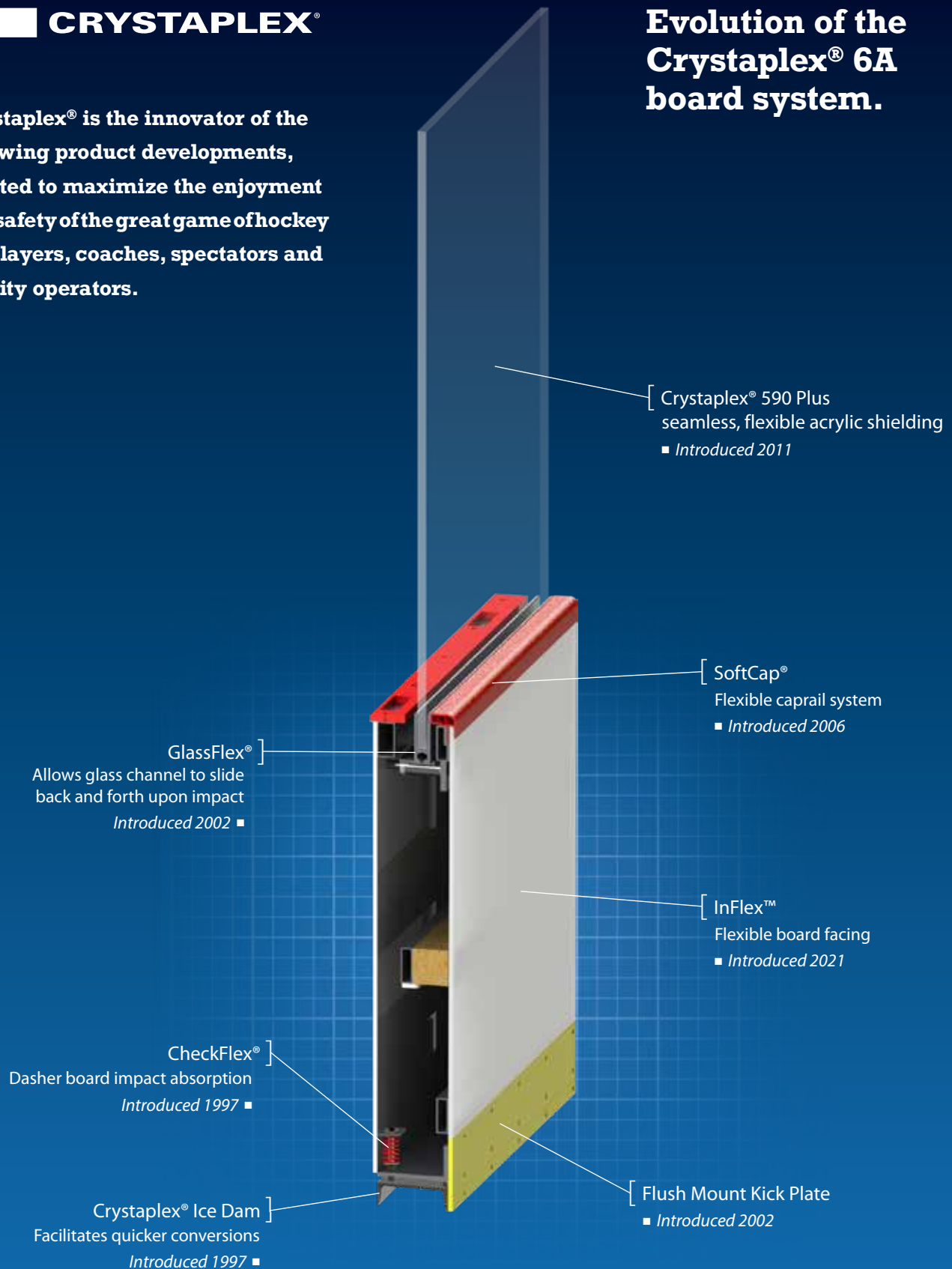
# Crystaplex® 6A

## DASHER BOARD SYSTEM



**Crystaplex® is the innovator of the following product developments, created to maximize the enjoyment and safety of the great game of hockey for players, coaches, spectators and facility operators.**

## **Evolution of the Crystaplex® 6A board system.**



[ Crystaplex® 590 Plus  
seamless, flexible acrylic shielding  
■ Introduced 2011

[ SoftCap®  
Flexible caprail system  
■ Introduced 2006

[ InFlex™  
Flexible board facing  
■ Introduced 2021

[ Flush Mount Kick Plate  
■ Introduced 2002

GlassFlex® ]  
Allows glass channel to slide  
back and forth upon impact  
Introduced 2002 ■

CheckFlex® ]  
Dasher board impact absorption  
Introduced 1997 ■

Crystaplex® Ice Dam ]  
Facilitates quicker conversions  
Introduced 1997 ■



## Crystaplex® 6A System

As the global dasher board industry leader, Athletica Sport Systems has developed cutting-edge technology to improve player safety, reduce risk and liability for owners and operators of rinks, simplify sports facility operations and to improve spectator experiences including:

### **SoftCap®**

Absorbs 96% more force than standard hard HDPE cap rail systems – a technology that our competitors have failed to produce.

### **Seamless Acrylic Shielding System.**

A one-of-a-kind, impact-absorbing design that uses industry-leading Crystaplex® 590 Plus acrylic, and offers ease of conversions, ultimate player safety and exceptional sightlines for spectators.

### **GlassFlex®, CheckFlex®, and InFlex™**

Allow the shielding, board systems and facing to flex upon impact, easing the strain on players' bodies during and after collision.

### **HDM Divider Sleeves™**

Allow for greater flex as they flex with Crystaplex® acrylic.

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The Crystaplex® 6A System is a high quality dasher board system that meets the current safety standards of the National Hockey League, and incorporates more safety features than any other dasher board system on the market. Crystaplex® seamless acrylic is also uniquely designed to provide optimal viewership for spectators and broadcast giving the best possible experience to fans. Athletica dasher board systems are installed in 30 of 31 NHL buildings, the majority of AHL arenas and dozens of NCAA facilities. It's not just for hockey. From figure skaters to speed skaters and leisure skaters, all ice sports benefit from a safer environment.



# Seamless Acrylic Shielding

## The system that makes a difference.



### At Athletica Sport Systems, we continue to be driven by innovation.

Today, as a growing number of arenas move away from seamless tempered glass shielding, we are pleased to introduce our revolutionary new Seamless Acrylic Shielding System (Canadian and US patents pending).

Available exclusively on our Crystaplex® and Pro Series™ dasherboards, our industry-first seamless acrylic design features Crystaplex® 590 Plus acrylic supported within aluminum U-channels at the top of the dasher panels. Thickness of Crystaplex® 590 Plus acrylic is guaranteed always to be between 0.585 inches and 0.620 inches. Other thicknesses also available: 545 Plus, and 472.

The edges of adjacent acrylic panels are specially cut and profiled for increased durability and resistance to breakage, and they're retained and separated by our unique polycarbonate HDM Divider Sleeves™ which extend from the top of the dasher boards to the top of the panels.

### The HDM Divider Sleeves™

The unique H-profile HDM Divider Sleeves™ flex with the acrylic upon impact, allowing the acrylic to attenuate the shock where the players make impact, while restricting the acrylic from deflecting dangerously into the spectator seats. HDM Divider Sleeves™ present an ice side surface that is thinner and less obtrusive than any available shielding supports, reducing the likelihood of bad puck bounces.



### NHL mandates replacing seamless tempered glass with acrylic

When the National Hockey League gave notice to league facility operators that they must convert tempered glass shielding in the ends and corners of their rinks to NHL-approved acrylic shielding systems, Athletica Sport Systems stepped up.

As the only dasher board manufacturer recognized as the preferred rink equipment supplier to the NHL, and as the league leader in design and innovation, our new seamless acrylic shielding system is not only a first in the arena facilities industry, but it was at the top of the list of approved acrylic shielding systems, issued in the Spring of 2011 by the league.

The Seamless Acrylic Shielding System by Athletica Sport Systems, is the only system of its kind to have been independently tested by Martin/Martin Consulting Engineers in accordance with standards for such systems established by the NHL.

### Testing by Martin/Martin Consulting Engineers

"From a player perspective, the Athletica seamless acrylic system tested exceeds the minimum flexibility requirements defined by the National Hockey League, with results indicating flexibility between 33% and 61% above the current NHL benchmark.

"From a spectator perspective, the deflection of the Athletica seamless acrylic system towards spectators is approximately 8% — 33% less than existing acrylic systems with polycarbonate posts."

"...the Athletica seamless acrylic system has polycarbonate sleeves between adjacent panels which are less harsh on players, when impacted, as compared to the aluminum stanchions currently used in some NHL arenas."

"...the Crystaplex® 590 Plus acrylic panels used with the Athletica seamless acrylic system are approximately 0.1 inches thicker than other acrylic panels currently used in NHL arena hockey enclosure systems. This additional thickness, as well as the care taken in rounding the edges of the panels and sleeves, is significant in reducing the potential for breakage."

*Report by Martin/Martin Consulting Engineers*



### What is Crystaplex® 590 Plus acrylic?

Not all acrylic shielding is created equal.

In some cases, what is referred to as "half-inch" thickness may in fact be as thin as 0.472" thick.

At Athletica Sport Systems, we take the science of sport seriously: we know that as technology has made hockey sticks lighter and slapshots faster and harder than ever, flimsy shielding doesn't cut it. That's why we only use Crystaplex® 590 Plus acrylic in our seamless acrylic shielding systems.

The Crystaplex® 590 Plus acrylic is guaranteed always to be between 0.585 inches and 0.620 inches thick.

You get all the advantages of lightweight acrylic with lasting durability you need in your dasherboard shielding.





## Improve player safety. **SoftCap®** Reduce the risk.

**Hockey is one of the world's most physically demanding sports, filled with hard hits, and even harder landings. That's why we developed the SoftCap® Caprail System and introduced it to the market in 2006.**

SoftCap® is designed to help reduce the likelihood and potential severity of injury to players, by providing a more forgiving surface at the caprail location of the boards, the most likely point of player contact, where injuries to the head, chin, mouth and elbow can occur.

SoftCap® is extruded with built-in cavities to enhance the deflection of the caprail upon player impact. Made of an advanced, flexible thermoplastic elastomer, formal testing shows SoftCap® is 96% more compressive than the current HDPE caprail, meaning impacts are more readily absorbed and energy more rapidly attenuated by the softer surface of SoftCap®. Available standard in red or blue as well as a variety of optional or custom colors.

SoftCap® can be specified as part of your new Crystaplex® or Pro Series™ dasherboard system, and can be retrofitted to many existing board systems as well. It's a good first step toward reducing injuries.

Player safety is the way of the future for hockey at all levels and is currently mandated in all NHL arenas. Due to increased awareness, the number of community, college and university rinks in North America interested in making their dasherboards safer, is increasing.

With SoftCap®, we help make your facility a better, safer place to play!



**What about so-called 'flush-mounted' glass? Isn't no caprail better than a SoftCap® rail?**

No, it really isn't.

Athletica Sport Systems test-marketed a version of this design years ago, and we learned that when players are checked into the boards, the differential between the boards and the shielding allows the hips and shoulders to make contact at the same time, distributing impact evenly and more safely.

In addition, the overwhelming opinion of players was the caprail provides a necessary leverage point to help them keep their feet during scrums in the corner, or when cycling the puck.

And having no caprail takes away a valuable perch for game officials in need of quickly getting their feet out of the way of the play.

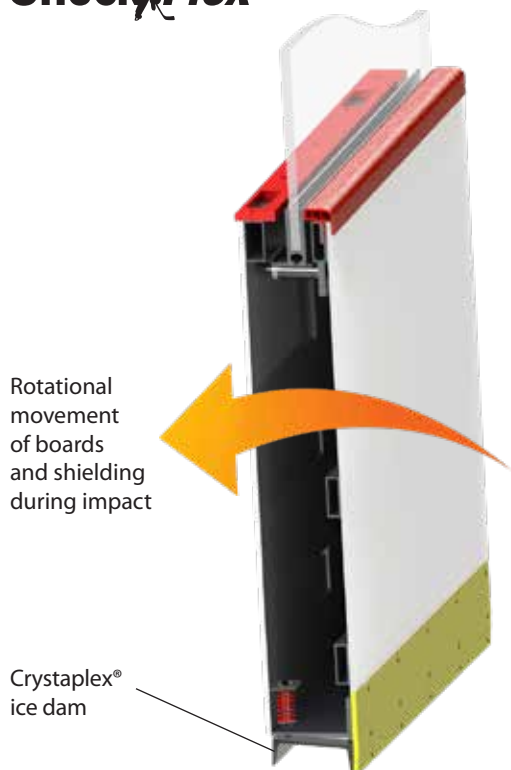
Removing the caprail isn't the answer.

Improving it is.



## The board system with impact.

**CheckFlex®**



### Impact absorbing

At Athletica Sport Systems, safety through innovation has always been at the forefront of what's important. That's why Crystaplex® developed CheckFlex®, the world's only working flexible dasher board system. CheckFlex® can be found in various elite, professional and collegiate facilities.

All hockey dasher boards must be firmly anchored to their respective surfaces. This anchoring normally eliminates any movement from the top of the dasher section to the ice surface. The Crystaplex® CheckFlex® dasher board system has impact absorption and movement that starts at the ice level and carries all the way to the top of the shielding. Each dasher section has the capability of operating and absorbing player impact, creating the CheckFlex® movement that the players have been demanding.

### Top to bottom flex

The CheckFlex® system operates with the assistance of a proprietary Crystaplex® 508 steel ice dam, which not only reduces the amount of labor required in changeovers, but also allows rotational movement of the boards starting just above ice level. The ice dam allows each dasher panel the ability to flex, allowing up to 3" (75mm) of impact absorption at 42" (1070mm) from the ice surface. A specially designed clip allows each glass shield to move in conjunction with its supporting dasher board, increasing the total impact absorption and taking the term "check" to a whole new level.

### Everyone benefits from CheckFlex®

By adding the CheckFlex® system to new or existing dasher boards, you are enhancing the qualities that made your original dasher boards popular with fans, operations staff and players. The fan still benefits from an unobstructed view and increased sight lines. The operations staff now has the added benefit of a steel ice dam, making changeovers even easier. Finally, the player who demands clean and true play off the glass now has the impact absorption and increased board flexibility of the Crystaplex® CheckFlex® dasher board system.



## Impact reduction for improved safety.

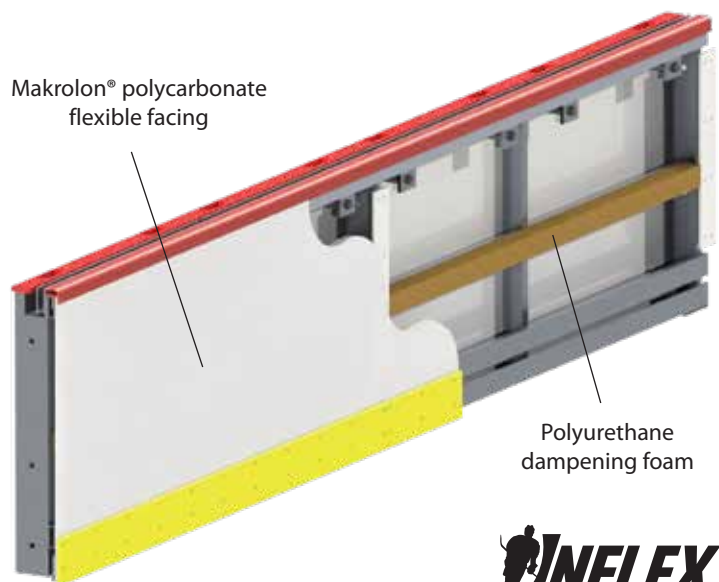
### InFlex™ Flexible Facing System

Newly-designed Crystaplex® 6A boards modified to employ a central section of polyurethane foam that allows the board facing to flex and disperse a portion of the impact when struck by a player but remain stiff when a puck makes contact.

This integration of new materials and technology reduces peak player impact to make the game safer for players, while not impacting the pace of play.

The InFlex™ flexible board facing system has increased flexibility and movement with a new facing material, comprising Covestro's Makrolon® polycarbonate sheeting over a nominal aluminum 6" frame that was modified to allow a polyurethane foam dampening element between new aluminum framing and the boards. This polyurethane foam was made with Covestro raw materials. The combination of sheeting, materials and framing allows the boards to flex when hit with mass but remain stiff when hit by pucks.

In other words, instead of hitting a solid steel framed wall, the newly designed boards absorb and disperse a portion of the impact when skated into by a player, but remain stiff when a puck makes contact.



**INFLEX™**



Up to **65%**  
improvement in  
energy absorption



**150 - 450%**  
increase in  
deflection vs.  
traditional steel



Distribution on impact  
velocity increased by  
**40 - 50**  
milliseconds

Increase flexibility.  
Increased safety.



The flexible seamless glass shielding system

- Proven to be more flexible than acrylic shielding, providing a more forgiving playing environment
- Designed for easy glass alignment/adjustment
- Accommodates 5/8" or 1/2" tempered glass
- Available as a partial or full Crystaplex® retrofit
- Crystaplex® 590 plus compatible



Upon impact, the GlassFlex® design allows the glass channel to slide back and forth



Clips allow each piece of glass to move independently upon impact, maximizing overall flexibility.



Access panel on topsill allows the glass to be easily adjusted so it stands straight and true without any shims.



GlassFlex® vs. acrylic

Athletica's GlassFlex® system exceeds all NHL flexibility criteria, which uses an acrylic system as its standard. GlassFlex® testing exceeded the flexibility of acrylic by...

	SOFT HIT	HARD HIT
End test	55%	17%
Radius test	48%	21%
Side test	32%	18%

Source: Martin and Martin Engineering, March 2003.

Test compared 1/2" tempered glass with 1/2" acrylic. Soft Hit consists of a 15 pound bag hitting the shielding. Hard Hit consists of a 200 pound bag hitting the shielding.



# Curved Acrylic Terminations



## Safety first.

### Player safety

A major player safety issue was addressed by the National Hockey League, when it mandated the replacement of the single aluminum glass-termination post at players boxes with a curved acrylic panel attached to an 'energy managing sleeve'. Athletica Sport Systems responded quickly and effectively to this mandate. Working in collaboration with the NHL and its independent engineering firm, our Curved Acrylic Termination Assembly (and our upgraded termination post padding) were approved by the NHL and selected by the majority for install.

### Flex Upon Impact

The Curved Terminations improve player safety by eliminating the old aluminum glass support at the point where shielding coming from the ends of the rink terminates at the players boxes. Our curved acrylic terminations flex upon impact, dramatically decreasing the risk of serious injury. Easily installed, they provide improved site lines to augment the improved safety benefits.



Bell Centre, Montreal Canadiens



Key Bank Center, Buffalo Sabres



Honda Center, Anaheim Ducks (VIP Box - Premium Seating)

# Conversion Features

## Crystaplex® Ice Dam

With features and benefits like these, it's no wonder the Crystaplex® ice dam is fast becoming the ice dam of choice for multi-purpose arenas:

- Strong galvanized steel construction is resistant to ice build up or pressure.
- Uniformity and strength means puck rebound is consistent.
- Replaceable HDPE kick plate uses Nylon fasteners to attach to the Ice Dam.
- Double set of integrated dasher anchors provide 100% backup should an anchor become stripped or unusable
- Insulated to minimize frost buildup or edge thawing.
- Dasher anchors are easily repaired or replaced.
- Designed for installation on new rinks or retrofitted on existing.
- Manufactured from structural channel or as a custom fabrication.
- Laser measurements add to dimensional accuracy and higher quality.
- Stainless Steel upgrade offers superior corrosion performance and higher ice quality.



### Crystaplex® 508 Ice Dam

2.0" height, available in either galvanized steel u-channel or fabricated stainless steel.

### Crystaplex® 635 Ice Dam

2.5" height, available in either fabricated galvanized steel or fabricated stainless steel.

### Poly Ice Dam

Popular for years in multi-purpose arenas, this natural white high density polyethylene has features not found in other ice dams. Available in 1" or 2" thickness.

### Poly Ramps

Our durable and maintenance-free tapered poly ramps are custom machined from natural white HDPE. We offer ramps in 1", 1.5" and 2" heights that taper down to 1/4". Available in straight or radius sections up to 10' in width

## ArenaDeck®

Everyone benefits from ArenaDeck®.

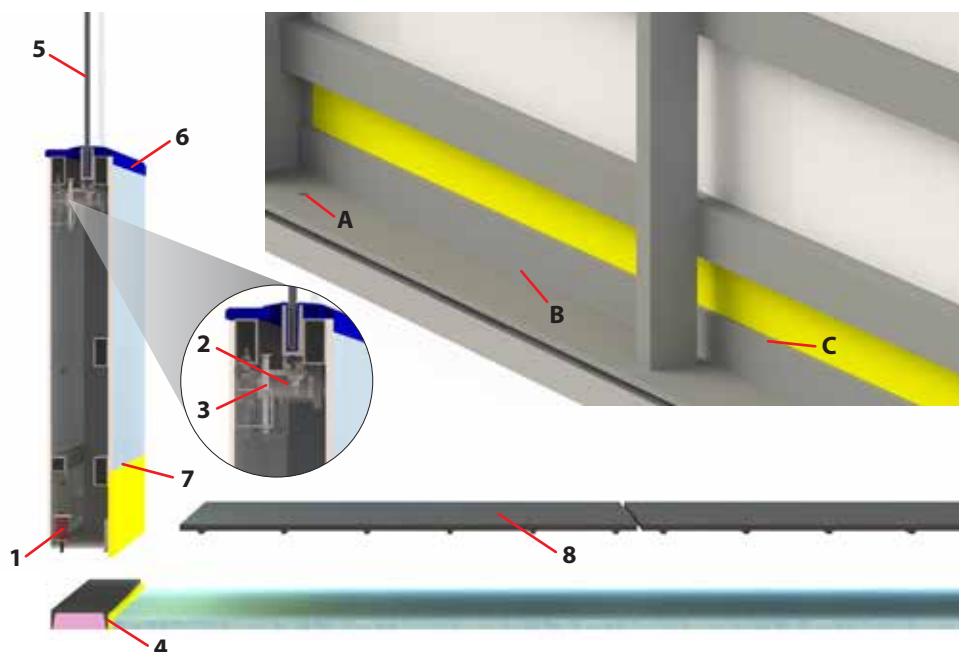
Non-absorbent, lightweight, and extremely durable, ArenaDeck® provides sound and thermal insulation and is resistant to contamination. This product will not warp or deform in any way; it does not flake, delaminate or crumble. ArenaDeck® is tremendously light, making it extremely easy to handle for fast and effective installation and removal. It's non-porous and will not stick to ice. It's very easy to clean with just a low-pressure washer or floor scrubber.



## Crystaplex® conversion arena system

- 1 - CheckFlex®
- 2 - GlassFlex®
- 3 - Quick release backer
- 4 - Crystaplex® 635 stainless steel ice dam
- 5 - Crystaplex® 590 plus acrylic shielding
- 6 - SoftCap®
- 7 - Inlaid and interlocking kick
- 8 - ArenaDeck®

- A** - Drilled on site allowing dasherboards to be uniquely suited to your arena.
- B** - Patented design prevents dirt and litter from accumulating under boards.
- C** - Conversion friendly aluminum base, designed for optimal puck play.



# Storage Carts

Conversion Dasher Board Storage Cart



## Protect your investment

### A-Frame Shielding Storage Cart

Available in two sizes to accommodate various shielding and storage room sizes. Each cart frame is constructed of welded steel and painted with strategically located white poly cladding to eliminate metal to glass contact. Two rigid and two swivel wheels allow the cart to be easily maneuvered via the welded-on towing tongues and pull handles (one each end). Two ratchet and strap assemblies are included with each cart. Maximum load capacity is 5000 lbs.

### Dasher Board Storage Cart

Storage carts are constructed of a welded steel and painted frame with 6" wheels (2 rigid and 2 swivel) that have been engineered to carry maximum loads. The cart deck is covered to eliminate metal to metal contact with end rails to minimize panel shifting and damage during transport. To maximize the load capacity, 12 straight (7") dasher panels can be easily loaded side by side and upright. The unique cart design allows for cart stacking to maximize storage space. Maximum load capacity is 2000 lbs.

### Conversion Dasher Board Storage Cart

Constructed of welded steel and painted frame with 6" wheels that allow the cart to be easily maneuvered. Features a hinge-mounted ramp for ease of loading. Poly spacers to prevent damage to drop kick.

### ArenaDeck® Stackable Storage Cart

ArenaDeck® storage carts are constructed of a welded steel and painted frame with 6" wheels (2 rigid and 2 swivel) that allow the cart to be easily maneuvered. The cart deck is plywood. Each cart will hold up to 50 1"H x 48"W x 96"L ice covering panels. Maximum load capacity is 2400 lbs.



A-Frame Shielding Storage Cart



Dasher Board Storage Cart



ArenaDeck®  
Stackable Storage Cart

## Storage Carts cont'd.



Crystaplex® HDM Cart



Slotted Acrylic Cart



Curved Acrylic Cart

### Crystaplex® HDM Cart

The cart frame is constructed of aluminum. Includes 2 cart push bars, with 2 swivel and 2 rigid caster wheels, allowing for easy movement. Holds 66 pieces of Crystaplex® HDM sleeves, Crystaplex® WIDE sleeve variant also available.

### Slotted Acrylic Cart

The cart frame is constructed of steel with a powder coating. Includes 2 swivel and 2 rigid caster wheels, as well as tow hitch and forklift lifting channels. Holds 34 pieces of 93" long Crystaplex® HDM sleeves, Crystaplex® HDM WIDE sleeve variant also available, or 30 pieces of 99" long Crystaplex® 590 Acrylic. Maximum load capacity is 6000 lbs..

### Curved Acrylic Cart

The cart frame is constructed of aluminum. Includes 2 cart push bars, with 2 swivel and 2 rigid caster wheels, which allow it to maneuver easily. Holds 7 complete curved acrylic assemblies and stores 4 additional HDR and 4 2C posts as well for convenience.



# NHL Water Bottle Holders | Camera Hole Covers

## NHL Water Bottle Holders

### The perfect solution for organization and sanitization

Our water bottle holders are custom-designed and custom-made to fit each unique player and penalty box configuration. Providing an elegant and organized storage solution to separate and segregate players' water bottles, the removable tray design also allows for easy cleaning and sanitization.

#### Key features:

- NHL design water bottle holders
- Removable Tray design for ease of cleaning and disinfecting
- Individual slots for personalized use
- Constructed from maintenance-free HDPE
- Standard color is white

## Camera Hole Covers

### Getting the clearest shots

In the interest of safety, the NHL passed a mandate to ensure all NHL arenas utilize a sliding camera hole cover during games.

Previously, photographers just detached the removable camera hole during games and replaced it afterwards. When not actively shooting, or when switching cameras or lenses, the hole remained exposed and open to an errant puck passing through at speed thereby endangering the photographer, the players and spectators alike. With the addition of the sliding cover, the photographer is now able to secure the opening as, and when necessary.



Removable and slide camera hole covers.



During game-play with slide cover positioned over open hole.

# Players' Benches & Coach's Walkway



Coach's Walkway with monitors installed



Standard Players' Bench and Coach's Walkway



Angled Players' Benches

## 6A Installations

### Chicago Blackhawks Community Ice Rink

### Chicago, Illinois

#### Installation Date

Fall 2016

Chicago, Illinois

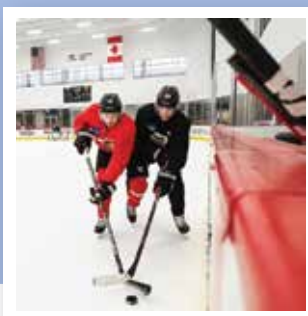
#### Features

- 2 6A Stations
- Crystaplex® 590 plus acrylic
- GlassFlex® • CheckFlex®
- Seamless Acrylic

#### RINK FACT:

*Chicago Blackhawks Community Ice Rink is the Official Practice Facility of the Chicago Blackhawks*

- .375" Stay White Backer Panel
- Curved Acrylic termination player box dividers
- Built for NHL regulation games



### Brandt Centre

### Regina, Saskatchewan

#### Installation Date

Summer 2017

Regina, Saskatchewan

#### Features

- Crystaplex® 590 plus acrylic
- GlassFlex® • CheckFlex®
- Conversion friendly dasher frames
- Crystaplex® 508 Steel ice dam

#### RINK FACT:

*In 2018 the Brandt Centre Hosted the Mastercard Memorial Cup*

- Built for NHL regulation games
- Curved Acrylic termination player box dividers



# INNOVATIVE DESIGN SOLUTIONS

WATERLOO • MINNEAPOLIS • VANCOUVER



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**BORDER PATROL**

 **CRYSTAPLEX**

**PRO Series™**

**BAP Series™**

**CAS Series™**

**GAMEPLEX**

**INFINITY Series™**

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