



# R6ST Indoor Ice Rink System Specifications

## **PART 1 - GENERAL**

### **1.01 GENERAL REQUIREMENTS**

- A) Division 1, General Requirements, is a part of this section and shall apply as if repeated here.
- B) To supply and install factory-prefabricated steel framed Dasher Board System, 42" or 48" nominal height, as per layout.

### **1.02 INTENT**

- A) Work included in this section is as follows:
  - 1. Anchors into concrete by dasher board manufacturer.
  - 2. Factory prefabricated structural steel frames.
  - 3. Polyethylene covering.
  - 4. Gates and hardware.
  - 5. Aluminum glazing supports.
  - 6. Tempered glass or acrylic shields.

- B) Related work specified elsewhere is as follows:

- 1. Painting.
- 2. Electrical.

### **1.03 QUALITY ASSURANCES**

- A) Qualifications

- 1. Employ persons skilled in this trade and proficient in the use of materials specified.
- 2. Perform work in strict accordance with manufacturer's instructions.
- 3. Dasher system manufacturer shall have a minimum of 5 years experience in manufacture, design and installation of dasher board projects.

### **1.04 SUBMITTALS**

- A) Samples

- 1. Submit samples, when requested, of material thickness and colours to architect for review.

- B) Shop Drawings

- 1. Submit shop drawings on items of this specification to the architect for review.
- 2. Drawings are to show;
  - sizes and locations of doors, lift gates and removable sections, relative to floor layout.
  - anchor layout.
  - detail on player boxes and goal judge boxes.
  - glass layout.





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### 1.05 PRODUCT DELIVERY, STORAGE AND HANDLING

- A) Deliver on site in a safe manner.
- B) Deliver and store material packaged in protective wrapping as to protect finishes and surfaces from scratching and marring.

### 1.06 SITE CONDITIONS

- A) Permanent lighting and power shall be installed and functional.
- B) Perimeter surface and freezing surface are to be in place prior to work in this section commencing. Both surfaces are to have no more than 1/4" (6 mm) variance in height over the length of the arena.
- C) All overhead painting is to be completed prior to work in this section commencing.

### 1.07 GUARANTEE

- A) Submit a written guarantee against defects of material and workmanship for a period of one year from date of substantial completion.

## PART 2 - PRODUCT

### 2.01 ACCEPTABLE MANUFACTURERS

- A) Dasher Boards, glazing and two-piece aluminum glazing support system as manufactured by Riley Manufacturing, and distributed by Global Sport Resources Ltd. 504-67 Avenue, Edmonton, AB (780)469-7980.

### 2.02 MATERIALS

- A) Steel Components
  - 1. Dasher Panels shall be fabricated in demountable sections of nominal 8' lengths. Frames are to be of welded construction, and hot dipped galvanized after fabrication. The design of all panels, whether straight section, curved section or a section in which a gate is located shall be fundamentally similar.
  - 2. Standard size of straight dasher panels are to be 96" long.
  - 3. Standard size of curved dasher panels are to be 88" long.
  - 4. All steel is to meet CAN 3-G40.21-M81, Grade 300 W.
  - 5. After the construction of the framing each panel is to be hot dip galvanized to meet or exceed CSA-G-164-M1981.
  - 6. Sections to be used in construction of the welded frame shall be:
    - Top Front Stringer (horizontal) – 1.5" x 3" x .125" (38 x 76 x 3 mm) HSS.
    - Top Back Stringer (horizontal) – 1.5" x 3" x .125" (38 x 76 x 3 mm) HSS.





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- Middle Front Stringer (horizontal) – 1.5" x 3" x 1/8" (38 x 76 x 3 mm).
- Bottom Front and Back Stringer (horizontal) – C3 @ 3.5 # Channel.
- Panel End Tubes and End Tubes at Gates (vertical) - 6" x 2" x 1/8" (127 x 51 x 3 mm), with two 3/4" diameter matching holes to accommodate 5/8" diameter through bolts.
- Intermediate Post (vertical) – 1.5" x 3" x 1/8" (38 x 76 x 3 mm) HSS.
- Anchor Plates - 5" x 4" x 1/2" (127 x 102 x 13 mm) galvanized steel with 1" (25 mm) holes punched in the centre.

### B) Anchors

1. **New** - Adjustable anchors shall be cast in place for new construction. Anchor height is to be the thickness of the slab less 1/32". Anchors are to be cast into freezing slab a minimum of 4" from edge of freezing slab.
2. **Retrofit** - Existing anchors are to be re-used for all retrofit dasher board installations.

**Note:** 1. 5/8" x 3 1/2" adhesive anchors can be used when required and when possible.

### C) Board Cladding

1. Puck board HDPE high impact, white, high density polyethylene shall be 1/2" (13 mm) thick. Natural white is not acceptable. Whites must match.
2. Kick Strip shall be 8" (203 mm) high and 1/2" (13 mm) thick. Kick Strip is to have top edge routed to a 1/4" (6 mm) radius.
3. Top Sill shall be 7" (178 mm) wide and 1/2" (13 mm) thick.
4. Official line markings, 1/2" x 12" wide (13 x 305 mm) red center line and blue lines, and 1/2" x 2" wide (13 x 51 mm) red shall be carried vertically up the face of the boards in such a fashion that they are flush and interrupt the "Stay White" surface completely from the ice to the bottom of the Top Sill.
5. Colours of Kick Strip and Top Sill shall be from manufacturers standard colour selection; white, gold, dark blue, light blue, red and yellow.
6. Fasteners for Board Cladding are to be 1/4-20 colour matched Philips flat head machine screws. The use of nylon rivets or sheet metal screws is unacceptable.

### D) Threshold

1. High density, stress relieved polyethylene skate threshold shall be 1" (25 mm) thick and 7" (178 mm) deep to cover entire width of all door openings. Fasteners are to be counter-sunk 1/2" (13 mm) deep.





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### E) Gates

1. Player Gates (30" wide standard), Access Gates (36" wide standard) and Machine Gates (120" wide standard) shall be of similar construction to Dasher Board frame. See additional information regarding electrical and hydraulic Lift Gates. (Refer to Options Specifications)

### F) Hardware

1. All metal hardware is to be zinc plated.
2. Player and Access Gate hinges are to be lift-off self lubricating pin type hinges are to be used on Also used on player and Access Gates **with** glass.
3. Machine Gate hinges are to be heavy duty adjustable hinges.
4. Player and Access Gate latches are to be 3/8" x 2" (9 x 50 mm) flat bar, easily opened with a gloved hand, with a downward movement.
5. Ice-side release mechanisms shall be installed on all Player and Access Gates with glazing.
6. Heavy duty spring loaded, phenolic tired, adjustable casters are to be equipped on each leaf of doors over 48" (1220 mm) in width.
7. Closure bars are to be sliding type, manufactured from 1 7/8" diameter solid steel bar secured to the left leaf of the Machine Gate which slides into 2" I.D. pipe brackets mounted on opposite leaf. Handle on closure bar is to turn down to avoid excessive protrusions on back of Dashers. Two closure bars per gate are to be used.
8. All fasteners are to be zinc plated. Fasteners are to be colour matched where necessary.

### G) Glazing Supports

1. Extruded aluminum glazing supports are to be alloy No. 6061-T6 with mill finish. Support back shall be secured at the bottom with a support mounting bracket, to the center stringer of the dasher panel. Supports are to be HDR Quick Release Supports which is a two-piece support with a removable ice-side cap with no mechanical fasteners. Necessary gasketing, fasteners or brackets are to be provided.
2. Sill to have a routed channel for flush mount glazing.
3. 2C supports are to be provided at glazing termination's, doors and 90 degree corners.
4. Installed for easy removal.
5. Vinyl covered urethane foam protective bumpers are to be provided at glazing termination's.

### H) Glazing

1. "See Through (R) Shields" shall be tempered glass or acrylic. Shields shall be 5/8" (16 mm) or 1/2" (13 mm) thick as indicated on drawings. Tempered glass shall conform to CAN2-12.1-M79, Type 2. Acrylic shall conform to ASTM D4802-88. Typically glass is 5/8" (16 mm) on ends and radii and 1/2" (13 mm) on sides of rink and on the front and sides of the timekeepers enclosure. Acrylic is to be 1/2" (13 mm) on ends and sides.
2. All shielding shall have the top two corners rounded to a 1/2" radius and the sides and top to have bevelled edges.
3. All shields shall be standard sizes except those at gates, removable sections or similar openings in the dasher boards.
4. All Glazing in Radius to be curved to same radius as arena boards



## I) Players, Penalty and Timekeepers Boxes

1. Interior finish of boxes is to be of similar construction as ice-side of Dasher Boards, utilizing 3/8" (10 mm) HDPE. Framing is to be of similar construction as the Dasher Boards.
2. HDPE high impact, integrally coloured, high density polyethylene 3/8 (9 mm) thick shall be installed on the back side of the ice side dashers to form a water bottle shelf. This shelf is to be equal in height to the middle stringer of the dasher board frame.
3. Players boxes are to be 30' long by 68" deep (9.14 x 1.72 m). Access via two gates per box on ice side.
4. Penalty boxes are to be 8' long by 68" deep (2.43 x 1.72 m). Access via one gate on ice side.
5. Timekeepers box is to be 6' long by 68" deep (1.82 x 1.72 m). Access via one gate on spectator or penalty box side.

## J) Players, Penalty Benches and Timekeepers Table

1. Player and Penalty bench construction is as follows:
  - Benches shall be 24' (8.53 m) long in players boxes and full width of the penalty box.
  - Benches are to be a nominal 9 1/2" (241 mm) deep and 20" (508 mm) above the finished floor.
  - Bench supports are to be constructed of 3" x 3" x 1/8" (76 x 76 x 3 mm) galvanized HSS uprights.
  - The tube supports will not exceed 6'-8" (2032 mm) on centre and will be attached to the bench with 3/8" lag bolts (2 per plate).
  - Tube supports are to be mounted to removable brackets in sockets in the raised flooring or permanently secured to the finished floor. (If applicable.)
  - All hardware is to be zinc plated or galvanized.
2. Timekeepers table shall be constructed with 1" (25 mm) polyethylene supported by three wall mounted, removable angle brackets.

## K) Floors For Players/Penalty/Timekeepers Boxes

1. Elevated flooring will be furnished, when requested, for the players, penalty and timekeepers box areas.
2. Floor construction is as follows:
  - 1/2" (12 mm) rubber matting is to be loose laid on the concrete floor.

## L) Sledge Hockey

1. Half height clear acrylic 1/2" thick for the front of the player boxes & penalty boxes (allows for viewing)
2. Lift off pin hinges at player/penalty box gates (gates can be removed) 30" wide or 36" wide (please circle selection)
3. Removable player/penalty benches
4. 2" high gate thresholds at player/penalty boxes and access gates
5. 3/8" white polyethylene in the floors at the player/penalty benches, the 1/2" black matting will be loose laid over the polyethylene floors



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### M) Flush Mount Glass

1. All glazing faces to be installed within ¼" (6mm) of face of boards.

## PART 3 – EXECUTION

### 3.01 Delivery and Installation

- A. Manufacturer shall construct, fabricate and deliver all materials to the job site per plans and specifications. Installations shall be in strict conformance with manufacturer's requirements and instructions.
- B. Installation of the dasher board system shall be completed in one of three following ways: complete installation by the manufacturer, on-site supervision by the manufacturer, or by an experienced dasher board contractor who is approved by the manufacturer.
- C. We are committed to safety, innovation and value and we reserve the right to change specifications at any time. Please call us before you send your project out to bid to ensure that you have up to date specifications.

**END OF SECTION**

