RETRACTABLE SEATING PLATFORM

WE DESIGN AND MANUFACTURE THE OPTIMAL SOLUTION OF SEATING SYSTEMS FOR RETRACTABLE, DEMOUNTABLE, AND STADIUM SEATINGS

2017
We promise to supply the best with your thoughts first through our brand new technology.

"NOISELESS AUTO TIP-UP SYSTEM"

ENJOY THE QUALITY !!
We do not sell products, we sell trust. Our corporate vision states:

Be one of the world’s leading manufacturers and providers of public seating solution by committing to providing the highest level of quality in service and products; cultivating lasting relationship with customers and employees; and focusing on driving sustainable, long-term growth.

NATIONAL SEATING has provided high quality spectator seats and retractable seating platforms that enhance the experience of millions of spectators who come to watch sports games, movies and various performances. Based on the customer satisfaction and trust we have built over many years, NATIONAL SEATING strives to continually enhance our services to exceed customers’ expectations.
RETRACTABLE SEATING PLATFORM
What is retractable seating platform

Retractable seating platform, also known as telescopic tribune, is a type of seating that can be folded away to the width of a single row when not in use. It is ideal for multi-purpose or small venues as it can be stored in a portion of the given space. Typical applications include lecture hall, auditorium and arena.

Every venue requires different seating needs. Based on decades of experience with technical expertise, NATIONAL SEATING is capable of providing customized solutions to our clients.
Iksan Cultural Center (Korea)

Model. NB-2 / 162 seats
Daegu College of Education (Korea)
Model: NBF-2 / 304 seats
Andong Gymnasium (Korea)
Model. NB-1 / 1,288 seats
Banwol High School (Korea)
Model. NBF-2 / 158 seats

Korea University (Korea)
Model. NB-1 / 4,811 seats
Goyang City Arena (Korea)
Model. NB-1 / 1,812 seats

Kyung Hee University (Korea)
Model. NB-1 / 384 seats
Posco Pohang Gym (Korea)
Model. NB-2 / 644 seats

Dongtan High School (Korea)
Model. NBF-1 / 120 seats
Anderson Creek (Australia)
200 seats

Southland Stadium (New Zealand)
3,500 seats
Aquinas College (Australia)
360 seats

JECC (India)
Model N-2 / 760 seats
Diamond Creek (Australia)
Model: NB-1 / 916 seats

Emmaus College (Australia)
286 seats
Taurama Aquatic Center (Papua New Guinea)
901 seats

Sir John Guise Indoor Stadium (New Zealand)
1,104 seats

United Interior (Kuwait)
650 seats
Samrye Community Center (Korea)
Model. NWF-2 / 146 seats

Yongin Bojung Nature Kindergarten (Korea)
Model. NBF-1 / 176 seats
Suwon Chilbo Gymnasium [Korea]
Model. NB-1 / 4,501 seats
Namyangju Hwado Gymnasium (Korea)
Model. NBF-1 / 836 seats
Yesan Yoon Bong-Gil Gymnasium (Korea)

Model. NB-1, NSC 2011, NSC 1015 / 1,996 seats
Doowon Technical University (Korea)  
Model: Miracle / 242 seats

Guri Sanmaru elementary school  
(Korea)  
Model: NBF-1 / 161 seats
Seats for retractable seating platform

Classification of seats
- NB: Blow-molded
- NBF: Blow-molded & fabric upholstered
- NW: Wood
- Option "1": With Backrest
- Option "2": With Armrest
- Type "a": Fixed to floor
- Type "b": Fixed to wall

- N: National
- B: Blow
- F: Fabric
- W: Wood
- A: Aluminum

Upholstery option (Fabric)
Option F: Fully upholstered
NB-2 is a blow molded, smooth folding type by gravity-utilized or completely silent noiseless auto tip up typed seat for retractable seating platform. Its frame made of aluminum to enhance the strength and durability which is adjustable for width 495mm between plate center to center.

When you need to maximize the flexibility of your floor plans, NB-2 is a great option for multi-use environments like auditorium, arena, and stadium.

<table>
<thead>
<tr>
<th>Material</th>
<th>Seat, back: High Density Polyethylene (HDPE)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Armrest: Polycarbonate (PC)</td>
</tr>
<tr>
<td></td>
<td>Frame: Aluminum die-casting</td>
</tr>
<tr>
<td></td>
<td>Bracket, leg: Steel</td>
</tr>
<tr>
<td>Size (mm)</td>
<td>W495 x D550 x H830</td>
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<tr>
<td>Finish</td>
<td>Frame, leg, bracket: Powder coating</td>
</tr>
<tr>
<td></td>
<td>Upholstery: Fabric</td>
</tr>
<tr>
<td>Molding type</td>
<td>Blow molding</td>
</tr>
<tr>
<td>Application</td>
<td>Arena, Multipurpose hall</td>
</tr>
</tbody>
</table>
NWF-2 is made of durable wood with resilient flame retardant polyurethane foam sponge. It is possible to decorate the backboard and the front panel of the seat to fabric or synthetic leather according to the consumer’s tastes.

NWF-2 is adjustable for width 500mm to 550mm between plate center to center which is using a convenient operating mechanism with smooth folding type by gravity-utilized or completely silent noiseless auto tip up type for retractable seating platform.

When Multi-use environments demand stylish, comfortable, flexible seating configurations like performance arts auditoriums, gymnastums, convention halls and arenas, NWF-2 is a highly recommended seating solution.

**Material**
- Seat, back, armrest cover: Wood
- Frame: Aluminum die casting
- Bracket: Steel
- Cushion: Polyurethane foam

**Size (mm)**
- W500~550 x D550 x H830

**Finish**
- Bracket, Frame: Powder coating
- Upholstery: Fabric

**Application**
- Arena, Multipurpose hall
Motor: 380V 50HZ, wheels made of rubber
Upper locking system
Lower locking system

Steel structure color option
- Gray
- Dark gray
- Black

Seat Fold Mechanism

**TYPE A**
- Motor
- Fully automatic by remote control

**TYPE B**
- Gas strut
- Manual / Semi automatic

**TYPE C**
- Spring
- Manual

Accessories
- Alkaline LED lighting
- Aluminum non slip
- Steel cup holder

Electronics
- Motor control box
- Remote control (corded)
- Remote control (wireless)
- Control box (CE certified)

Steel structure color option
- Gray
- Dark gray
- Black
Platform flooring option

Carpet

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Linoleum

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Deco-tile

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<td>DTE6050 • A3</td>
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<td>DTE6043 • A3</td>
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<tr>
<td>DTE6048 • A3</td>
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</table>
Fabric color option for seat

Specification
- Flammability: BS 5852:2006 (Source 5)
- Abrasion resistance: ISO 12947-2:2014 (Martindale methods 200,000 cycles)
- Colorfastness to washing: ISO 105 C06:2014 (Grade 4-5)
- Colorfastness to water: ISO 105 E01:2010 (Grade 4-5)
- Colorfastness to light: ISO 105 B02:2010 (Xenon-arc lamp, Blue scale Grade 4)
- Colorfastness to rubbing: KS K 0650:2011 (Grade 4-5)
- Tensile strength: KS K 0620:2015 (C.R.E, Grab method H100 and 2,000)
Storage type

WALL ATTACHED
The last row of seats is fixed to the wall / floor and the stand moves toward the wall. This is most common type of storage.

RECESSED
The stand recedes inside a section of a wall to be in line with the balustrade.

MOBILE
The platform can be moved to other places by a hand pallet jack.

Dimensions

### Seat Type: NB

<table>
<thead>
<tr>
<th>Classification</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
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<tbody>
<tr>
<td>A (Depth of row)</td>
<td>600</td>
<td>650</td>
<td>900</td>
</tr>
<tr>
<td>B (Depth of walkway)</td>
<td>350</td>
<td>400</td>
<td>450</td>
</tr>
<tr>
<td>C (Height of seat)</td>
<td>380</td>
<td>400</td>
<td>500</td>
</tr>
<tr>
<td>D (Depth of seat)</td>
<td>250</td>
<td>250</td>
<td>350</td>
</tr>
<tr>
<td>E (Height of riser)</td>
<td>230</td>
<td>250</td>
<td>300</td>
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</tbody>
</table>

### Seat Type: NB-1

<table>
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<th>Classification</th>
<th>Minimum</th>
<th>Typical</th>
<th>Maximum</th>
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<tbody>
<tr>
<td>A (Depth of row)</td>
<td>850</td>
<td>900</td>
<td>1000</td>
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<tr>
<td>B (Depth of walkway)</td>
<td>300</td>
<td>350</td>
<td>450</td>
</tr>
<tr>
<td>C (Height of seat)</td>
<td>430</td>
<td>450</td>
<td>500</td>
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<tr>
<td>D (Depth of seat)</td>
<td>550</td>
<td>550</td>
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<tr>
<td>E (Height of riser)</td>
<td>230</td>
<td>300</td>
<td>500</td>
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### Seat Type: NB-2

<table>
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<tbody>
<tr>
<td>A (Depth of row)</td>
<td>850</td>
<td>900</td>
<td>1000</td>
</tr>
<tr>
<td>B (Depth of walkway)</td>
<td>300</td>
<td>350</td>
<td>450</td>
</tr>
<tr>
<td>C (Height of seat)</td>
<td>430</td>
<td>450</td>
<td>500</td>
</tr>
<tr>
<td>D (Depth of seat)</td>
<td>550</td>
<td>550</td>
<td>550</td>
</tr>
<tr>
<td>E (Height of riser)</td>
<td>230</td>
<td>250</td>
<td>300</td>
</tr>
</tbody>
</table>
Demountable seatings are temporary or permanent steel structures for spectators at sports stadiums. Our demountable solution is a versatile and cost-effective structure which allows you the custom-built to meet your exact requirements.

NATIONAL SEATING’s modular system ensures fast and safe installation, ease of use and safety, and durability of the structure.
Buan Sports Park [Korea]
Model: NSC 5000, NSC 1015 / 104 seats

Ice Hockey
Supplementary Stadium [Pyeongchang 2018]
Model: NSC 1015 / 485 seats
Yangpyeong Gangsang Sports Park (Korea) Model. NSC 3000

Incheon Asian Game Main Stadium (Korea) Model. NSC 2020, NSC 2040, NSC 1015
61,944 seats
NSC 2000 / NPC 3000

Temporary / portable bleacher. Safe, stable and easy to install for indoor and outdoor use. Made of either aluminum or wood. Size can be customized. Wheels can be attached for ease of movement.

NSC 2000
Size: W4500 X D950 X H600 (2 rows and 20 seats)

NSC 3000
Size: W4500 X D1300 X H800 (3 rows and 30 seats)

NSC 5000

Temporary stand. Safe, stable and easy to install for indoor and outdoor use. Made of either aluminum or wood. Size can be customized. Side and rear guard rails can be attached for safety.

Seats for Design Options

- NSC 1002
- NSC 1006
- NSC 1009
- NSC 1012
- NSC 1013
- NSC 1015
- NSC 1106
- NSC 1108
- NSC 1109
STADIUM SEATINGS
Incheon Asian Game Main Stadium (Korea)

Model: NSC 2020, NSC 2040, NSC 1015 / 61,944 seats
Yangyang Stadium (Korea)
Model: NSC 2020, NSC 2040 / 6,500 seats
Samsung Lions’ Park (Korea)
Model: NSC 2020, NSC 2011, NSC 4010
22,000 seats
Busan Guduk Stadium (Korea)
Model: NSC 2030 / 8,135 seats
Gochuck Sky Dome (Korea)
Model: NSC 2020, NSC 2040T, 16,847 seats
Jinju Stadium (Korea)
Model. NSC 2020, NSC 2011, NSC 1015
21,207 seats
Pohang Baseball Field (Korea)
Model. NSC 2011 / 4,600 seats
Wonju Stadium (Korea)
Model: NSC 2011, NSC 1108, NSC 1006 / 15,402 seats

Moonkyung Army Athletic Field (Korea)
Model: NSC 2020, NSC 2010, NSC 1015 / 21,207 seats
Jeongseon Gymnasium (Korea)
Model. NSC 2020, NSC 2011 / 1,712 seats

Jeongseon Stadium (Korea)
Model. NSC 2040, NSS 1106 / 11,488 seats
Incheon United Football Field (Korea)
Model. NSC 2020, NSC 2040 / 20,467 seats
Hwaseong Arena (Korea)
Model. NSC 2030 / 5,158 seats

Hwaseong Stadium (Korea)
Model. NSC 2030 / 40,985 seats
Nonsan Hokuk Younmsa (Korea)
Model: NSC 2020 / 3,130 seats
Naval Education & Training Command (Korea)
Model: NSC 2030 / 1,810 seats
Changwon Arena (Korea)
Model. NSC 1006 / 5,307 seats

Gyeongju Public Stadium (Korea)
Model. NSC 2011, NSC 1006
12,199 seats
Incheon World Cup Stadium (Korea)

Model: NSC 1010, NSC 1010B / 50,256 seats
Jeonju World Cup Stadium (Korea)
Model. NSC 1010, NSC 1012 / 42,880 seats
Seogwipo World Cup Stadium (Korea)
Model. NSC 1011, NSC 1012 / 42,256 seats
Gwangju World Cup Stadium (Korea)
Model. NSC 1011, NSC 1012 / 42,880 seats
Yeongam F1 (Korea)
Model. NSC 1015 / 16,872 seats
Ice Hockey Main Stadium
(Pyeongchang 2018)
Model: NSC 2030, NSC 1015 / 9,018 seats
Ice Hockey Second Stadium  
(Pyeongchang 2018)  
Model: NSC 1015 / 5,859 seats
In auditorium, multi purpose hall and theater, NATIONAL SEATING’s comfortable NCC series enhance audience’s viewing experience during the performance.
NCC 5010 is suitable for auditorium and conference hall.

Seat and back are made of High Density Polyethylene and fire resistant elastic polyurethane foam upholstered by fabric.

Option: Writing tablet

### Material
- Seat, back: High Density Polyethylene (HDPE)
- Leg: Steel
- Armrest, writing tablet: Wood
- Cushion: Polyurethane foam

### Size (mm)
- W530~550 x D920 x H1030

### Finish
- Leg: Powder coating
- Upholstery: Fabric

### Application
- Multi purpose hall, Auditorium, Theater
NCC 5020 is great option for cinema and auditorium. Seat and back are made of High Density Polyethylene and fire resistant / elastic polyurethane foam upholstered by fabric.

**Material**
- Seat, back, armrest: High Density Polyethylene (HDPE)
- Leg: Steel
- Writing tablet: Wood
- Cushion: Polyurethane foam

**Size (mm)**
- W530～580 x D750～850 x H1000～1100

**Finish**
- Leg: Powder coating
- Upholstery: Fabric

**Application**
- Multi purpose hall, Auditorium, Cinema

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**CGV Incheon Starium (Korea)**
Model: NCC 5020 / 291 seats
NCC 5030 is great option for auditorium and conference hall.

Seating and back are made of durable wood and fire resistant / elastic polyurethane foam upholstered by fabric.

Option: Writing tablet

**Material**
- Seat, back, armrest: Wood
- Leg, frame: Steel
- Writing tablet: Wood
- Cushion: Polyurethane foam

**Size (mm)**
- 950~990 x 915 x 940

**Finish**
- Leg: Powder coating
- Upholstery: Fabric

**Application**
- Multi purpose hall, Auditorium, Theater

Government Complex Sejong (Korea)
Model: NCC 5030 / 624 seats
SEATING SYSTEMS
FOR RENTAL

- DEMOUNTABLE
- MOVABLE (RETRACTABLE / BLEACHERS)
Colorful Daegu Festival 2017 (Korea)
1 Block 92 seats, 10 Set Rental
Total 920 seats
Mobile Grandstand
Installation process

1. Transport
2. Movement
3. Installation
4. Storage
5. Keep
6. Installation (draw)
7. Installing the Safe Handrail
8. Installation Complete
9. Installation Complete
10. Use