

The Next Generation of Portable Basketball Floors

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The multiuse space concept is as old as man's first dedicated public spaces. Therefore, the idea of having a floor that can be picked-up and removed to accommodate another activity or event utilizing the same space isn't new, rather it is and has been a common thread in public space design.

As basketball gained popularity among the general public, exhibition and professional teams formed creating a demand for higher capacity facilities, eventually helping drive the growth of civic arenas. As basketball's fan base continued to grow throughout the 1940s and 50s, venues with larger seating capacities were needed to meet attendance demands. This launched the portable athletic basketball floor system market.

Early portables were comprised of simple designs—the flooring fastened to solid dimensional lumber stringers, and sections secured together with an array of fasteners that were often exposed on the face of the individual panel's flooring boards. These portables did not have the ability to offer systems with force reduction and often provided marginal playing surfaces. Today, some manufacturers still continue to use legacy materials in the construction of their portable subfloor systems' generally dimensional softwood boards or sleepers. Portable floor system design advancements have evolved slowly as it is a relatively small specialized market. But at the same time, the market carries a high profile since the floors are commonly used by professional and university teams.

Today's public venues host unique events daily and need to efficiently convert from basketball to concert to hockey and back in short periods of time. To maximize efficiencies, ease of assembly and weight control of the portable floor sections are critical for the arena crews in accomplishing quick turn-around. Some older generation portable floor systems tip the scales in the range of 95 kg, a stout weight when a crew has over 220 panels to install for a game or pick-up and remove for the next day's event. As fatigue sets in, the care with which the panels are handled declines leading to potential crew health and safety concerns, along with potential repair costs. Not to mention, the care and quality of the installation also declines.

Older portable subfloor designs that continue to rely on dimensional lumber (SPF) spruce-pine-fir have some challenges. Dimensional lumber has some natural characteristics that can cause long-term use and durability concerns due to material. How straight is it? Has it been properly kiln dried? Is it twisted? Is it bowed? Is it free of defects such as knots that can cause structural weaknesses? How is it affected by changes in relative humidity? All of these concerns could cause performance issues and long-term serviceability. As noted with materials, the manufacturing and assembly practices of most of today's portables are rooted in the 1950s and 60s, relying on manual assembly of the panels in "jigs", the final trimming completed by hand, with each panel being unique in its final dimension.

Today's updated designs using new manufacturing technology combined with better material selection are moving the market forward. Progressive engineering and improved assembly designs have pushed portable basketball floor systems practicality and set-up speeds forward. Performance materials such as laminated veneer lumber and HMDT plastics now take the place of historical materials such as dimension softwoods or light metal cladding. The newer materials offer significant strength and

dimensional accuracy allowing the portable floor's subfloor panels to be constructed from stronger, straighter, and lighter materials. Additionally, the new materials are more environmentally stable and not easily compromised by sudden short-term spikes in relative humidity and temperature fluctuations.

Along with new materials, today's superior manufacturing methods are no longer tied to producing portable sections in jigs, the variability of manually drilling hardware bracket holes, or manually determining performance pad placement. CNC machining takes the guess work and loose tolerances required for jig construction out of the equation. With CNC machining, each portable panel has its hardware brackets accurately placed. Each panel is precisely cut to exacting tolerances; performance pads are evenly placed for maximum uniformity, and the panel-to-panel tongue and groove is milled to the overall panel build-up dimension, not subject to individual material tolerance variables. The tongue and groove connection between the portable panels is a critical element to the floor's uniformity. By accurately machining a continuous tongue and groove around the perimeter of each panel, energy from a player's action is passed seamlessly from point to point, delivering a true uniform floor. Many older system designs do not feature a true continuous perimeter tongue and groove, rather they use sectional grooves reducing the uniformity of their portable floor system.

What does this all mean? The desired characteristics for a portable floor—strength, stability, and straightness—along with uniform portable floor construction requirements and manufacturing technology have finally been combined. The results? A new generation of portable floors that deliver the real game-time performance demanded by teams and expected by players with the quick, efficient assembly and take-down required by arenas to keep their facilities on schedule. The superior engineering, materials, and manufacturing practices of the latest portables deliver an option for strong durable floor systems that maximize performance and reliable service.

Portables typically feature hard maple flooring grown in the northern United States. Maple has long been and continues to be the preferred basketball flooring surface. Maple flooring has a light color. Fine tight-grained maple sands and finishes well and resists splintering, a trait often found in species that have a coarser cellular structure. The light color affords players easy color contrast of game lines, and the strength and density of maple delivers floor systems with excellent durability and performance.

When you start looking for your next portable basketball floor system, research the systems' design, the materials used, and how the portable is manufactured. Technology advancements coupled with product improvement have become an expectation. Portable basketball floor systems are just the latest product to take that next inevitable step. You wouldn't buy an outdated cellular phone; why would you purchase an outdated portable floor?

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