



# POWER FORWARD

Action Floor Systems' Ron Fenhaus introduces the next generation of portable basketball floors.

**T**he multi-use 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 utilising 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 fanbase continued to grow throughout the 1940s and 50s, venues

with larger seating capacities were needed to meet the increased attendance demands. This in turn 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 force reduction and often only provided marginal playing surfaces. Some manufacturers continue to use legacy materials in the construction of their portable subfloor

Action NitroPanel® Portable Sports Floor, FIBA Certified, Monroe College, New Rochelle, NY, USA. 670m2/7,200sqft.



Action NitroPanel® Portable Sports Floor, Southeast Texas Mavericks Basketball Team, Winnie Texas, USA. 624m2/6,720sqft.

systems, generally dimensional softwood boards or sleepers.

Portable floor system design advancements have evolved slowly as it is a relatively small, specialised market, but at the same time the sector enjoys a high profile as these floors are used by professional and university teams.

### Old versus New

Today's public venues host unique events daily and need to efficiently convert from basketball to concert to hockey and back, all in as short a period of time as possible. To maximise efficiencies, ease of assembly

and weight control of the portable floor sections are critical to accomplishing a quick turn-around. Some older generation portable floor systems tip the scales in the range of 95kg, 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 can decline, leading to potential health and safety concerns for the crews, along with potential repair costs for the portables. 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 also have some challenges. Dimensional lumber has some natural characteristics that can cause long-term use and durability concerns due to the material. How straight is it? Has it been properly kilned 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 60's, relying on manual assembly of the panels in "jigs", the final trimming completed by hand, with each panel being unique in its final dimension. However, 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 also 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



Action NitroPanel® FC Portable Sports Floor, FIBA Certified — Anna Dymna's "Against the Odds" Charity Event, Krakow, Poland. 528m<sup>2</sup>/5,684sqft.

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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.

### Slam Dunk

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 result being 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 maximise 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 colour. 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 colour affords players easy colour 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 make sure to research the systems' design, the materials used, and how it 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, so why purchase an outdated portable floor. ★

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