

PowerVent Air Flow System

SECTION 09642-Wood Gymnasium Flooring

PART 1 – GENERAL

1.1. DESCRIPTION

A. Related work specified under other sections.

1. CONCRETE SUBFLOORS – SECTION 03____

a. Slab depression is:

2-1/2" for 25/32" flooring (with 1/4" foam)

2-3/4" for 33/32" flooring (with 1/4" foam)

Adjust slab depression accordingly when using other than 1/4" foam.

b. The general contractor shall furnish and install the concrete subfloor depressing the slab sufficiently to accommodate the floor system. The slab shall be steel troweled smooth to a tolerance of 1/8" in any 10' radius by the general contractor. High spots shall be ground level, and low spots filled in with approved leveling compound by the general contractor to the full approval of the installer.

2. MEMBRANE WATERPROOFING-SECTION 07____

a. Concrete subfloors on or below grade shall be adequately waterproofed beneath the slab and at the perimeter walls and on earth side of below grade walls by general contractor using suitable type membrane.

3. THRESHOLDS – SECTION 08____

4. SLEEVES AND STANDARD INSERTS – SECTION 11____

1.2. REFERENCES

A. DIN – Performance Standard 18032 Part 2

B. EN – Performance Standard 14904 World Standard

C. FSC – Forest Stewardship Council

D. LEED – Leadership in Energy and Environmental Design

E. MFMA – Maple Flooring Manufacturers Association

F. PUR- Performance Uniformity Rating Standards

1.3. QUALITY ASSURANCE

A. Manufacturer

1. Manufacturer of resilient flooring shall be a firm specializing in manufacturing products specified in this section.

2. Basis of design shall be "PowerVent Air Flow System" sports floor system as provided by **Aacer Flooring. (877) 582-1181, www.Aacerflooring.com.**

3. Materials other than those listed must be approved 10 days prior by written addendum. Materials from non-approved manufacturers will not be accepted.

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B. Installer

1. The installation of the floor system described in these specifications shall be completed by a firm familiar with the requirements of the system specified and fully experienced in procedures required for installing athletic flooring manufactured by Acer Flooring.
2. Installer shall be liable for all matters related to installation for a period of one year after the floor has been substantially installed and completed.
3. Installer must have Acer installation accreditation.
 - a. Optional: MFMA accreditation.(Specify or Delete)

C. Performance Testing

1. Flooring system shall have been independently tested to the International Standards: DIN 18032, Part 2 or EN 14904.
2. Independent DIN testing laboratory must be recognized by the MFMA and test to all the required standards of the DIN testing methodologies.
3. Independent DIN testing laboratory shall have Scientific Body Membership in the International Association of Sports Surface Sciences (ISSS).

1.4. SUBMITTALS

- A. **Specification** - Submit Acer Flooring specification sheets and shop drawings as required.
- B. **Sample** - Submit required number of samples of the specified system as requested by the owner/architect.
- C. **Maintenance Guidelines** - Upon completion of floor, send the Acer Floor Maintenance Guide to the owner. This guide will explain the proper HVAC and building maintenance requirements as well as floor cleaning and servicing guidelines to assure proper floor performance and longevity.

1.5. WORKING CONDITIONS

- A. The wood flooring and its components specified herein shall not be delivered or installed until all wet trades and overhead work is completed. This includes all masonry, painting, plaster, tile, marble, and terrazzo, as well as all overhead mechanical trades. The building shall be fully enclosed and weather tight and all permanent windows and doorways shall be installed. Permanent heating and air conditioning shall be installed and working in accordance with building occupation requirements.
- B. The concrete substrate shall be determined fully cured by industry standards. It shall be free of all foreign materials and broom cleaned when turned over to the floor installer. Permanent HVAC units for the building shall have been operating a minimum of one week prior to the floor installation start up.
- C. During and after installation, building HVAC systems shall maintain a temperature and humidity range compatible with the expected high and low moisture content range of the flooring. The floor installer, based on the building's HVAC control and geographical situation, shall determine this range.

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- D. Flooring must be stored on site in a dry, well ventilated area while acclimating to site conditions. Moisture content of wood shall be consistent with the ambient conditions of the building as it will be maintained when occupied.

1.6. WARRANTY AND DISCLAIMER

- A. Aacer Flooring of Peshtigo WI, hereby warrants the materials it has supplied to be free from manufacturing defects for a period of one year. This warranty is in lieu of and excludes all other warranties expressed or implied including any implied warranties of merchant ability or fitness for a particular purpose.
- B. During the warranty period, the floor shall not be recoated without the approval of the flooring contractor.
- C. The jobsite documentation forms by the flooring contractor shall become a part of the warranty and both the owner and flooring contractor shall retain record of said forms as a permanent reference for any abrogation.
- D. Flooring contractor warrants the install of the floor systems to be free from defects in materials and workmanship for a period of one year.
- E. Notification of claim shall be made within 30 days of discovery.
- F. It is the policy of Aacer Flooring to continuously improve its line of products. Therefore, Aacer Flooring reserves the right to change, modify, or discontinue systems, specifications and accessories of all products at any time without notice or obligation to purchaser.

PART 2 PRODUCTS

2.1. MATERIALS

- A. **Vapor Barrier** – 6 mil polyethylene
- B. **Resilient Foam-**
 - 1. 1/4" multicellular, closed cell, polyethylene foam, nominal 2.0 PCF density.
 - 2. Optional Resilient Foam(Specify or Delete)
 - a. 1/2" multicellular, closed cell, polyethylene foam, nominal 2.0 PCF density.
- C. **Subfloor** –
 - 1. 1" X 6" (nominal) Spruce, Pine, Fir, Hemlock, S4S, random length.
 - 2. FSC® Certified (Specify or Delete) Subfloor must be certified by the Forest Stewardship Council®
- D. **Automatic Mechanical Ventilation-**
 - 1. Aacer "PowerVent Air Flow System"
 - a. 3" x 12" air duct, attached blowers capable of at least 300 C.F.M. and a controlling humidistat.
- E. **Flooring** –
 - 1. 25/32" x 2-1/4" 2nd and Better grade northern Hard Maple flooring, TGEM, MFMA grade marked and stamped as manufactured by Aacer Flooring.
 - 2. Optional Sizes and Grades (Specify or Delete)

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- a. 25/32" x 1-1/2" ; 25/32" x 2-1/2"; 33/32" x 2-1/4", 33/32" x 1-1/2"
 - b. 1st grade, 3rd grade, 3rd and better grade
3. FSC® Certified (Specify or Delete) Maple must be certified by the Forest Stewardship Council®
 4. Expansion Bead (Specify or Delete) Flooring shall include 1/64" Expansion Bead.
- F. Fasteners –**
1. Flooring - 2" barbed cleats.
 2. Subfloor – 1-1/2" coated staples.
 3. PowerVent-1/2" sheet metal screws, 1" pan head screws.
- G. Finish Materials –** Any seal and finish approved by the MFMA
- H. Game Lines –** Compatible with finish and as specified by layout design
- I. Wall Base -** Heavy duty, molded, vented cove base with pre-molded outside corners.

PART 3 - EXECUTION

3.1. PRE-INSTALLATION INSPECTION

- A.** Floor installer shall verify slab tolerance of concrete and report any corrections to general contractor.
- B.** Room shall be broom cleaned and free of any foreign debris.
- C.** Floor installer shall document site and working conditions prior to and during installation. This documentation shall become a part of any warranty and may or may not affect fulfillment of any warranty.

3.2. INSTALLATION

A. SUBFLOOR –

1. Cover entire slab with 6 mil polyethylene, sealing and lapping joints a minimum of 6".
2. Lay foam perpendicular to the long dimension of the room. Butt all end and side joints tight. Tape all seams.
3. Install first layer of 1 x 6 pine at 22-1/2 degrees to the finished flooring direction. Butt end joints and provide 2" for spacing alongside edges. Provide 1-1/2" expansion voids at perimeter and all vertical obstructions. Install solid blocking at doorways, under bleachers in the stacked position, and below portable goals.
4. The second layer of 1 x 6 pine shall be laid in the opposite direction of the first layer, at a 22-1/2 degree angle to the finished flooring direction. Butt end joints and provide 2" spacing alongside edges and secure to first layer with staples at each intersection. Provide 1-1/2" expansion voids at perimeter and all vertical obstructions.
5. Install "PowerVent" humidistat and wiring before hardwood flooring is nailed. Install blower and vents behind a bleacher bank located on a long wall of the gym so that the blowers push the air across the short dimension of the room. Install the duct run inserting the blower panels at correct intervals. Screw the ducting panels to the wall through the top flange with 1" pan head screws 8" on center. Overlap the ends of the panels 1" and fasten with 1/2" sheet metal screws 4" on center. Insert cut to size 2x4 piece in each end of duct

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run. Insure that the 2x4 piece extends down to the slab before fastening with 1" screws 4" on center. Seal all joints with caulk.

B. MAPLE FLOORING

1. Install Acer maple flooring parallel with the long dimension of room. Flooring shall be power nailed every 10" to 12" O.C. with all end joints properly driven tight.
2. Expansion joints may be required between flooring strips intermittently throughout the floor. Requirements will be determined by site and geographical conditions.
3. Provide a minimum 1-1/2" expansion void at all walls and permanent obstructions.

3.3. FINISHING

A. FLOOR SANDING

1. Machine sand entire floor with multiple grit papers to a smooth and uniform surface, free from edger marks and drum drops.
2. Remove all sanding dust and lint from entire surface by vacuum and/or tack.

B. FINISHING AND GAME LINES

1. Inspect entire floor to be sure surface is ready to accept seal and finish. Floor should be free from dust and debris.
2. Apply (2) coats of approved seal and (2) coats of approved finish per manufacturer's label instructions.
3. Floor shall be buffed, cleaned and tacked between coats.
4. Apply game lines and logos as indicated by drawings between seal and finish coats. Paint shall be compatible with finish.

C. BASE INSTALLATION

1. Install vent cove base with cove base adhesive and/or mechanical attachment to wall. Use pre-molded outside corners and mitered inside corners.

3.4. CLEANUP

A. CLEANUP

1. Remove excess debris and waste material from the work area.
2. General Contractor shall lock floor area after floor is finished to allow proper curing time. If general contractor or owner requires use of gym before proper curing time, they shall protect the floor by covering with non-marring Kraft paper.

END OF SECTION 09642

PowerVent Spec sheet

June 22nd, 2009

Revision level A