

Job Site Conditions

Before start of project, the steps outlined below must be taken to protect you the flooring contractor and to ensure a quality project.

- 1) The wood flooring and all of its components shall not be delivered or installed until all overhead and wet trades are complete. This includes but is not limited to electrical, masonry, painting, plaster, tile, marble, and terrazzo.
- 2) The building shall be fully enclosed and weather tight. Permanent windows and doors shall be installed; the H.V.A.C. system should be complete, operational, and conditioning air to be within specifications (55/75 degrees with humidity between 35/ 50 percent) or to conditions expected following installation and during occupancy.
- 3) Flooring contractor shall verify slab tolerance (+/- 1/8" in 10' radius) and report to owner, general contractor, or architect in writing, any and all discrepancies. All high spots will need to be ground and low spots filled with approved leveling compound by the concrete contractor to meet the approval of flooring contractor.
- 4) Flooring contractor shall document working conditions on site both prior to and during installation. This document shall become part of any warranty, and may affect fulfillment of said warranty. To include but not limited to ambient temperature, humidity, and moisture content of strip flooring. These readings should be taken a minimum of twice a day at several locations each time and more often when site conditions warrant.
- 5) The concrete substrate shall be deemed fully cured by industry standards. Field test moisture content of concrete using Relative Humidity (RH) testing. Relative humidity levels for non-glue down systems need to be at 85% or lower and the relative humidity for glue down systems should be at 75% or lower. A RH reading above 85% means that not only can the floor *not* be installed but the materials i.e. plywood, sleepers, strip flooring cannot be brought to the job site. One of the three following tests can be used as pre-tests only and should not be used to determine if the concrete slab has reached acceptable levels for installation. Polyethylene Film Test, Phenolphthalein test or the Calcium Chloride test. These tests should be taken in several locations and an average taken to determine accuracy, in addition to clearly identifying any and all problem areas. A moisture content reading higher than 5% means the concrete is not ready for installation.
- 6) Flooring must be stored on site in a dry, well-ventilated area, not in direct contact with the concrete, while acclimating to site conditions. Moisture content of wood shall be consistent with the ambient conditions of the building as they will be maintained when occupied.

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- 7) Concrete slab depressions shall be consistent with total height of sub floor and strip wood floor combined. Any and all discrepancies shall be addressed prior to material being delivered.

NOTE: THIS MANUAL PROVIDES A FUNDAMENTAL REFERENCE GUIDE FOR THE INSTALLATION OF THE AACERCHANNEL FLOOR SYSTEMS. WHILE AACER SPORTS FLOORING BELIEVES THAT FOLLOWING THESE INSTRUCTIONS WILL RESULT IN THE BEST INSTALLATION, IT MAKES NO WARRANTY OR REPRESENTATION OF ANY NATURE, TYPE, OR DESCRIPTION EXPRESSED, IMPLIED, OR PROVIDED BY LAW RESPECTING THE INSTALLATION PROCESS OR THE RESULTS ACHIEVED. ALTHOUGH VALUABLE INFORMATION IS PROVIDED IN THIS GUIDE, IT IS NOT INTENDED AS SUBSTITUTE FOR ON SITE TRAINING BY QUALIFIED AND EXPERIENCED PERSONNEL. ALL SPECIFICATIONS MUST BE FOLLOWED.

AacerChannel Series Installation Tools Required

- Humidity meter or sling psychrometer
- 10" or 12' metal straight edge (for checking flatness)
- Marking paint (to mark low areas that need filling)
- Dolly (for moving material)
- Shim material for floor
- Chalk line
- Visqueen
- Duct tape or adhesive
- Pneumatic gun and 1" pins (regular and LP versions only)
- Hammer drill and concrete bits (VLP and VLP HC only)
- Chop saw
- Table saw
- Jigsaw with metal blades
- Air compressor & hoses
- Extension cords
- Pneumatic stapler & staples (for stapling sub floor)
- Pneumatic nailer & nails (for nailing strip floor)
- Hand drive coated finish nails 6d or 8d (for nailing strip floor)
- General carpentry tools
- Moisture meter (for checking sub floor and strip flooring)
- Expansion spacers
- Wide, fine bristle broom
- Sanding and finishing equipment

AacerChannel Installation Instructions

Regular & LP versions----See separate VLP/VLP HC sheet for steps 6 and 7

- 1) Two to three weeks prior to materials being delivered to the project, the foreman should visit the site and verify conditions. This would include making a 5' grid and checking slab tolerances using a 10' straight edge, moving it perpendicular to the plotted grid in both directions to identify all areas requiring correction. (Note: The use of a transit or laser alone does not include measurements between the grid points.) If conditions are not satisfactory the general contractor should be informed to make appropriate corrections. Concrete moisture test should be taken at several spots in work area to determine average moisture content. Verify jobsite is on schedule and all requirements are going to be or have been met. This would include but is not limited to the building being fully enclosed, H.V.A.C. system working and conditioning air to manufacturer's specifications, overhead trades complete, wet trades complete, etc. Start project documentation; include moisture content of slab, humidity levels and any problems with job site (See attached job site conditions for a list of requirements).
- 2) When materials are delivered to site, make sure there is an adequate means to handle and place materials. The storage area should be in the work site. Storing materials in the four corners will save extra handling later. Allow enough time for materials to be acclimated to site conditions, if required.
- 3) Your installation begins by first having proper job documentation (temperature, humidity, moisture content, progress and problems). Job documentation needs to be done every day, twice a day (minimum) throughout the duration of the project.
- 4) Sweep entire project area using a sweeping compound to control dust. Then drag a metal straight edge over entire surface to determine all high and low spots. Mark and fill all low spots with appropriate filler and grind all high spots.
- 5) Cover slab with 6 mil poly, lap seams 6" and seal with 2" duct tape or adhesive.
- 6) Lay first row of panels 2" from a short wall with the steel side facing the center of the room. Use a chalk line to start straight and square.
Lay panels end to end with steel along the line... aligning the receiver channels, hold in place by tacking plywood overlap, leave 1/4" break on overlap. Capture steel on panels with the 8' long steel anchoring strips, break joints of the long lengths 2' from the panel steel. Anchor starter row with 1" drive pins, 16" O.C. nominal. Use cut off panel piece from 1st row to start the next row.
There should be a 1-2 foot stagger in the starter pieces of each row.

AacerChannel Regular & LP (cont.)

- 7) Set the next row of panels with plywood edge overlapping the panels (1/4" gap ends and sides) covering the anchored steel of the previous row. Align current row of panels by exposed steel edge to keep a straight line. Tack overlap with 1" staple. Again use 8' steel to capture steel on panels, break joints 2' with steel on panel in adjoining rows. Anchor steel. Repeat to the far wall.
- 8) The last row may have to be cut to fit at the wall. It may be necessary to block the edge of the panels for support with extra pads or plywood blocks (3x3). Blocks are the same thickness as the pads.

Note: Put solid blocking between pads for panels that go under bleachers or portable backstops or other obstructions.

- 9) When starting with starter panels find the center of the gym and mark it with a chalk line. You can then line the panels up on the line or find the center of the panels and split the panel on the chalk line. There will be steel channel for each side of the starter panels so once they are laid in place you can begin aligning the receiver channels and securing them with the 8' long steel anchoring strips, break joints of the long lengths 2' from the panel steel. Then continue following steps 7 and 8 above.
- 10) Install maple strip flooring running the long dimension of the room. Aacer Flooring recommends starting near the center of the room. Snap a caulk line near the center of the room running the long dimension of the work area (adjusting of line may be required to have flooring run parallel with court and game lines). Install straight stop block along chalk line as a guide for the first few rows to begin installation. When nailing flooring, work in a left to right direction. Care should be taken to prevent damage to surface edge or face of maple. Wood end joints should be tight and free of voids. You may remove stop block after 10 rows are installed and insert wood spline to allow simultaneous installation of the floor in both directions. Near the perimeter the use of a nail gun will be impossible, so face nailing will be required using 6d or 8d coated nails. Pre-drilling a slightly undersized hole in the flooring will prevent splitting the strip. Expansion rows may be required intermittently throughout the floor. Requirements will be determined by site and geographical location. Provide a minimum 2" void at all walls and permanent obstructions.
- 11) Sanding: Inspect entire floor for defects and correct as required. Fill all small voids with wood filler then machine sand entire floor using course, medium and fine grit sand paper to a smooth uniform surface free of drum drops and edger marks. Remove all sanding dust and lint from entire surface by vacuum or tack cloth.

AacerChannel Regular & LP (cont.)

- 12) Examine entire surface for imperfections and repair as required to make sure floor is ready for finish. Apply seal coats per manufacturer's instructions. Floor shall be buffed, cleaned and tacked between coats. Apply game lines and logos as required. Paint shall be compatible with finish. Apply finish per manufacturer's directions. General contractor or owner shall take steps to secure gym until finish is cured and flooring contractor allows foot traffic.
- 13) Install vent cove base with adhesive or mechanical fasteners to walls. Using pre-molded outside corners as needed. NOTE: When using adhesive take care not to block air cavities.
- 14) Thresholds and transitions shall be designed and installed to adequately allow for expansion and contraction of the wood floor. The flooring contractor shall install thresholds and transitions. At no time should the threshold be fastened to the wood floor.

AacerChannel VLP and VLP HC Installation Instructions Replaces steps 6 and 7 above

AacerChannel VLP is a simple system to install. There are three versions: #1 Uses a 1/2" thick foam blanket, #2 uses 12mm pads, #3 comes with foam padding strips attached. VLP HC has two versions. #1 foam strips and #2 uses 12mm pads. Standard VLP versions come with steel anchors and bonded rubber/steel washers and the VLP HC comes with hat channel sections and steel anchors and bonded rubber/steel washers.

Step 1 - Assuming the slab has been checked and is in tolerance, cover the entire surface with 6 mil poly or heavier vapor barrier. Lap the edges a minimum 6" and seal with 2" duct tape or mastic.

Step 2A - Foam (option #1) roll out foam at a 90 degree angle to the finish flooring. Butt all joints and seal with 2" duct tape. Follow step 2B.

Step 2B - Padded (options #2 & #3) start along a short wall. **Note, the overlap on two sides of each panel and place the first panel so that the long overlap faces a corner.** For the starter panel, measure in 2' from each end of the under lap side and 4' from the overlap side. Draw a line from the 4' mark to each of the 2' marks and cut the panel on the line. Use this middle piece to start the panels by laying it in the corner, and allowing 1-1/2" to 2" voids along all perimeters walls and vertical obstructions. As you continue, lay the panels lapped end-to-end, (break joints 1/4") at 45 degrees to the direction of the finished flooring. Staple the end tabs 6" O.C. with 3/4" staples. Start the second row by measuring in 2' from each end on the overlap side and draw a line from each mark to the corner of the under lap side. Cut on each line and lay this panel in place. Overlap the side tabs and staple end and side tabs 6" O.C. Break side lap joints 1/4", break

AacerChannel VLP Installation Instructions (cont.)

panel joints 2-4 feet in adjacent rows. This can be easily maintained while you continue to panels by cutting the starter panels by measuring in 2' on the under lap side and 4' on the overlap side. Connect these points and cut. The next row you will measure 4' in on the under lap side and 6' in on the overlap side. Again, connect these points and cut the panel. Cut off panels can be used to start future rows. **Please note that because each project is different this pattern may vary slightly, but as the panels are laid out the pattern will appear.**

Step 3 – Each panel has 3 spots to be anchored with either 3 steel pins and washers or hat channel and steel pins and washers, but only need to have the end 2 used. Use factory drilled anchor pockets to insure proper spacing. Drill through the foam (if used) 1-1/2" into the concrete with a 3/16" bit. Drive the pin with the washer, rubber side up, into the concrete until the pin head is 1/8" below the surface of the plywood. Repeat across the floor. Do not use a gun.

Step 4 – Nail up flooring the long dimension of the room with 1-3/4" power cleats.
DO NOT use 2" cleats, they will protrude 1/4" through the panels and will hang up in the foam.

Step 5 – Sand, finish and game line as required

Aacer Channel Series

VARIATIONS:

Standard System 2-1/2" profile
Has 3/4" (19mm) pads
Installs per instructions.

LP System (low profile) 2-1/4" profile
Has 1/2" (12mm) pads.
Installs per instructions.

VLP System (very low profile) 1-7/8"-2" profile
There are 3 versions with all installed panels at a 45.

Option 1 has 12mm pads attached.
Option 2 has 12mm foam attached

AacerChannel VLP Installation Instructions (cont.)

Option 3 has nothing attached and is laid over a full foam layer

VLP HC System (very low profile hat channel) 1-7/8"-2" profile
There are 2 versions with all installed panels at a 45.

Option 1 has 12mm pads attached.

Option 2 has 12mm foam attached

All install per the VLP instruction sheet which replaces #'s 6 and 7 in the regular instructions.