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## Custom Insets

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Custom insets require special skill and training. Here are some basic tips for installing insets in various Armstrong ${ }^{\circledR}$ floors.

## A. ARMSTRONG ${ }^{\circledR}$ EXCELON FLOORING BASKETBALL COURT

All procedures for installing Excelon tile apply to the installation of the basketball court inset. The layout of the basketball court is based on the location of the basketball goals. IMPORTANT: The backboards must be properly installed and the correct distance apart before starting the installation. Check this by measuring.

1. Mark the floor at each end of the court directly under the center of the front edge of each goal by using a plumb bob and snap a chalk line through these points. Measure back 9 " from each original mark to locate the center of the goals.
2. Strike a perpendicular line at the midpoint of the original line. This will be the division line.
3. Use the center lines to determine the boundaries and strike chalk lines on four sides.
4. Construct a circle at the center of the court with a radius of 6 '.
5. Lay out key and three-point lines. Use the center of the goal as the starting point.
6. Install the center court line, boundary lines, and sidelines of the key following the chalk lines outlined in Steps 1, 3 and 5. DO NOT install center court circle, three-point line, or key circle.
7. Begin laying tile at the division line and work toward the goals. Cut 1 " from each tile on other sides of the division line so that tile outside the boundary will align properly.
8. Transfer the center court and goal reference marks, and rescribe the circles onto the tile.
9. Position the preformed feature strips along the scribe lines and adjust as needed by warming them with a hot air gun. Hold the feature strips securely and score along the opposite side with a knife.
10. Lay the feature strips to the side and warm the area to be removed with a hot air gun. Cut the scored lines all the way through and remove the parts where the feature strips will be placed. Scrape the excess adhesive residue smooth, spread new adhesive, and install feature strips.

## Standard Court Dimensions

College 50' x 94'
High School $50^{\prime} \times 84^{\prime}$
Junior High 42' x 74 '


## B. ARMSTRONG ${ }^{\circledR}$ EXCELON Flooring SHUFFLEBOARD UNIT

Official shuffleboard dimensions are 6 ' wide by 52 ' long. The Armstrong Flooring standard shuffleboard unit dimensions are 3 ' wide by 18 ' long, and it is available in red/white/blue. Each kit contains two ends each 3 ' wide by $3^{\prime} 9 "$ long.

The length of the room must first be considered. It is much easier and requires fewer cuts of the field tile if the installation is laid out so that the shuffleboard court has full field tile from outer edge of one 10 OFF zone to the outer edge of the other 10 OFF zone. This distance can be either odd or even, based upon the room size, but if the distance is set in full feet, the layout is greatly simplified and the number of complicated cuts is greatly reduced.

1. Determine which wall you are going to square and measure from. When this has been determined, measure from this wall to wherever the CENTER LINE of the court should be. By measuring out into the room from both ends of this wall and making a mark on the subfloor, a chalk line can now be dropped from one mark to the other to create the CENTER LINE of the court. (NOTE: If tile will be installed in the entire room, make sure at least a half tile is left at all the perimeter walls and then adjust the CENTER LINE accordingly.)
2. The CENTER LINE must run through the point at the top of both scoring zones (the tip of the 10 triangle). Measure 18 " from both ends of the CENTER LINE and make a mark on the subfloor. Drop another chalk line from mark to mark to create the other sideline. Repeat this on the other side of the CENTER LINE to create one sideline of the court. The length and width of the court is now outlined by chalk lines.
3. Next, determine the placement of each scoring zone. The easiest way to do this is to place the 10 OFF zone pieces between the sidelines at both ends of the court and measure from the outer edge of one to the outer edge of the other. Again, if this distance is in full feet, the installation is greatly simplified. Allow for the 18 " field on the outside of the 10 OFF zone pieces.
4. Make a mark across the CENTER LINE at the outer edge of each 10 OFF piece and pull the piece out of the way. Align a carpenter's square along the CENTER LINE with the $90^{\circ}$ arm of the carpenter square and draw a line perpendicular to the CENTER LINE along the edge of the carpenter's square. These are the base lines for the inset.
5. Spread the adhesive up to the base line and up to the sidelines, 4 " into the court from the base lines. After the recommended open time, align the outer edge of the 10 OFF pieces to the base lines and touching the sidelines. Install the two 7 pieces so the outer tips touch the sidelines. Finish installing the scoring zones.
6. As you place the field tile up to the scoring zones, heat the tile on the back side and cut each to fit against the scoring zone. Complete the field tile installation.
The diagram indicates correct measurements and arrangement for the complete shuffleboard court. This court has been scaled down from the regulation size to make it adaptable for residential recreation rooms.
The dotted lines on the right-hand section show the suggested method for cutting field tile on the job to complete each $3^{\prime} 0 " \times 6^{\prime} 6 "$ playing end of the court. These dimensions may be reduced according to size of room.


## C. VOLLEYBALL COURT

Armstrong Flooring does not distribute a packaged volleyball court inset. However, Armstrong ${ }^{\circledR}$ Feature Strips flooring can be used for the boundary lines shown below. Five full cartons of 2 " x 24 " feature strips are required for these boundary lines.


## D. ELLIPTICAL STAR

The elliptical star requires two colors of sheet flooring and should be set into a third color. Its size may be adjusted to suit the needs of the area in which it is installed.

1. Draw straight line $A B$ on the material and erect perpendicular line $C D$ through center point $E$ (Fig. 1).
2. Use the length of line $E B\left(2-1 / 2^{\prime}\right)$ to mark points $F$ and $G$ by measuring from $D$. Place thumbtacks at $F$ and $G$ (Fig. 2).


Fig. 1


Fig. 2
3. Hold the ends of a string at $G$ and loop the string (indicated by the dotted line) over tack F. Place a pencil against the inside of the loop, draw the string to $D$ and hold the free ends together at $G$. Draw an ellipse through $D, B, C$ and $A$ by pressing the pencil firmly against the taut string (Fig. 3).
4. Find midpoints $\mathrm{H}, \mathrm{I}, \mathrm{J}$ and K of each quarter of the ellipse with a pair of dividers. Locate points $\mathrm{L}, \mathrm{M}, \mathrm{N}$ and O midway on lines ED, EC, EA and EB. Use the length of line EO to mark points $P$ and $Q$ by measuring from $O$ and draw the small ellipse (Fig. 4).


Fig. 3


Fig. 4
5. Mark $R$ as the midpoint between EC and EH. Mark S, T, U, V, W, X and $Y$ in the same way and draw lines from each of them. Draw lines CR, RH, HS, SB, BT, TI, IV, UD, DV, VJ, JW, WA, AX, XK, KY and YC to complete drawing the
star (Fig. 5).
6. Cut out sections for which the second color is to be substituted. Remove these pieces and place the long side against a straightedge on top of the color to be inserted into the star. Use the piece as a template and cut along the two short sides. Remove the piece and cut along the straightedge to form the third side. Insert the sections into the star and tape the pieces together. Position the star on the third color and tape it down. Score around the entire star and set it aside. Cut along the scored lines and replace with the two-colored star (Fig. 6).


Fig. 5


Fig. 6

