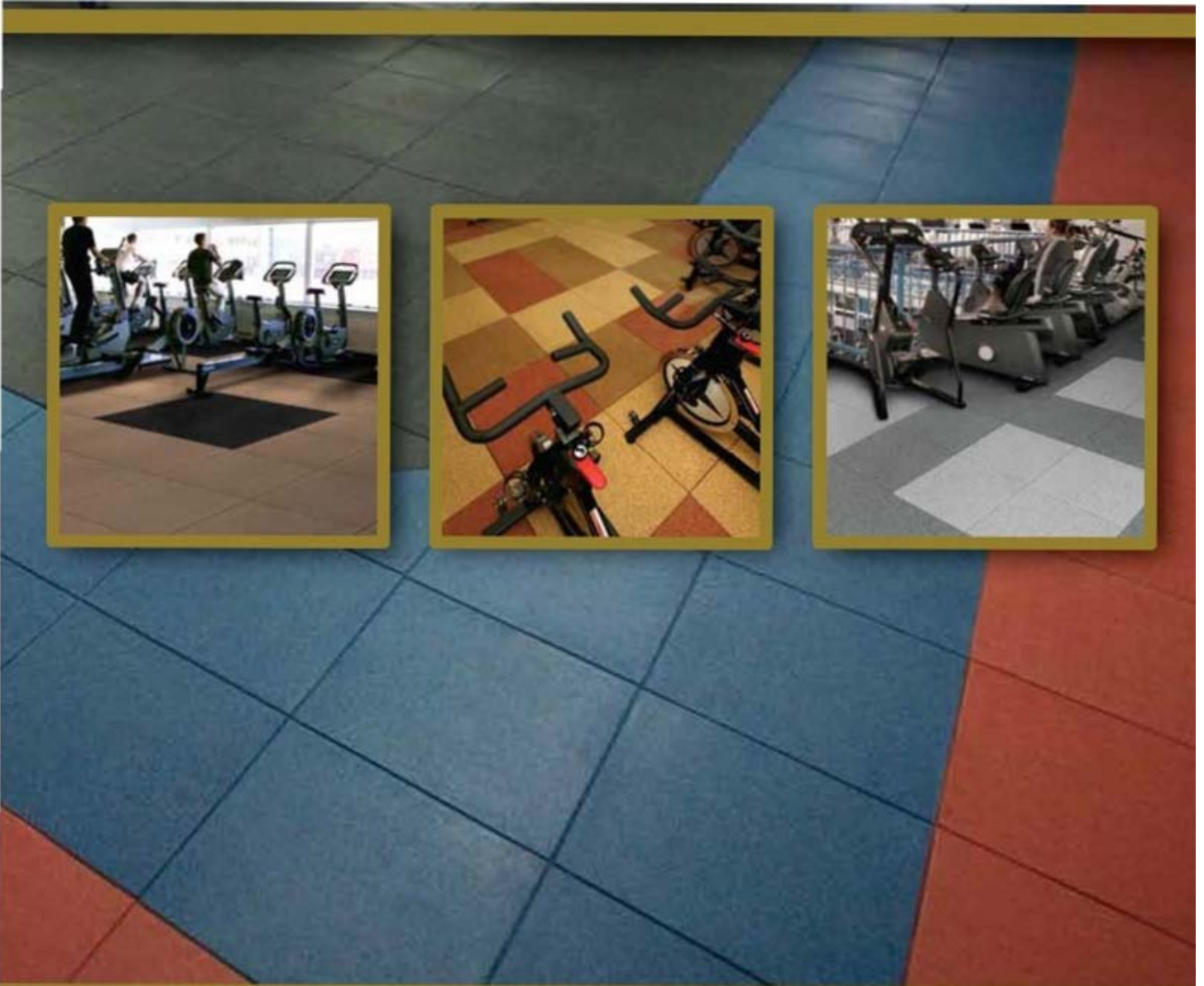


# GREATMATS

SPECIALTY FLOORING

## Sterling Athletic Rubber Tile 1.25 Inch



## Installation Procedures

# CONTENTS:

I - Installation Method One - Partial Glue Down Method

II - Adhesive Instructions

III - Installation Method Two - Glueless Method

IV - Installation Inspection Form

## Sterling Athletic Rubber Tile Layout Reference Chart

Number of Tiles	Installed Dimension	Number of Tiles	Installed Dimension	Number of Tiles	Installed Dimension
1	1' 11 7/8"	18	35' 9 3/4"	34	67' 7 3/4"
2	3' 11 3/4"	19	37' 9 5/8"	35	69' 7 5/8"
3	5' 11 5/8"	20	39' 9 1/2"	36	71' 7 1/2"
4	7' 11 1/2"	21	41' 9 3/8"	37	73' 7 3/8"
5	9' 11 3/8"	22	43' 9 1/4"	38	75' 7 1/4"
6	11' 11 1/4"	23	45' 9 1/8"	39	77' 7 1/8"
7	13' 11 1/8"	24	47' 9"	40	79' 7"
8	15' 11"	25	49' 8 7/8"	41	81' 6 7/8"
9	17' 10 7/8"	26	51' 8 3/4"	42	83' 6 3/4"
10	19' 10 3/4"	27	53' 8 5/8"	43	85' 6 5/8"
11	21' 10 5/8"	28	55' 8 1/2"	44	87' 6 1/2"
12	23' 10 1/2"	29	57' 8 3/8"	45	89' 6 3/8"
13	25' 10 3/8"	30	59' 8 1/4"	46	91' 6 1/4"
14	27' 10 1/4"	31	61' 8 1/8"	47	93' 6 1/8"
15	29' 10 1/8"	32	63' 8"	48	95' 6"
16	31' 10"	33	65' 7 7/8"	49	97' 5 7/8"
17	33' 9 7/8"			50	99' 5 3/4"

# Sterling Athletic Rubber Tile 1.25 Inch

## INSTALLATION GUIDE

### Introduction

Sterling Athletic Rubber Tile Flooring must be installed correctly in order to maintain the 10 year material warranty. It is **imperative** that all tiles be installed under compression to create a tight seam

between the tiles. Failure to install the Sterling system under compression to the dimensions outlined in the attached **Table** will void the systems warranty. By carefully following the instructions below you will be able to achieve the required compression during installation.

### The Layout

When preparing the initial site layout there are important factors to take into consideration:

- Each Sterling tile is manufactured to a nominal dimension of 24" (+/- 1/16th") x 24" (+/- 1/16th") from the factory
- The Sterling installation process requires that each tile be installed under compression to a finished dimension of 23 7/8" (compressed 1/8th inch per tile)
- For installation efficiency, you may wish to pre-mark your tape measure in 23 7/8" increments based on the attached compression chart
- It is unlikely that the site is perfectly square or exactly as shown in the drawings
- The glueless Sterling installation method requires that all perimeter tiles be cut in **at the beginning** of the installation.

To ensure a visually proportionate site, lay the surface out with similar dimension cuts on all four sides of the floor. **When possible, cut tiles should be a minimum of 10" in width.**

### INSTALLATION METHOD ONE - *Partial Glue Down Method* (Applications Larger Than 2,000 sq.ft.)

Each Sterling tile measures approximately 24" (+/- 1/16th") x 24" (+/- 1/16th") from the factory.

After they are installed under compression they must measure 23 7/8" X 23 7/8", meaning each tile must be compressed by 1/8th inch.

Since each individual Sterling tile must be compressed by 1/8th inch, the cumulative compression over a large floor span can best be achieved by breaking the total area into smaller more workable grid sections.

The following guidelines have been prepared to ensure that your large installation is properly compressed using a minimal amount of effort. This advanced installation technique will introduce new terminology and concepts involving the use of keystone tiles, strategic rows of tiles and compression rows.

**Note: The installation techniques outlined in the following sections are mandatory to ensure the surface has been installed to specification and to validate the warranty.**

#### A - Locate the Center Line of the Room

Locate, measure and chalk line the vertical and horizontal center lines in the room. Center lines should be shifted based on the best visual effect on the perimeter cuts. When possible perimeter cuts should be a minimum of 10 inches in width (**Fig. 1**).

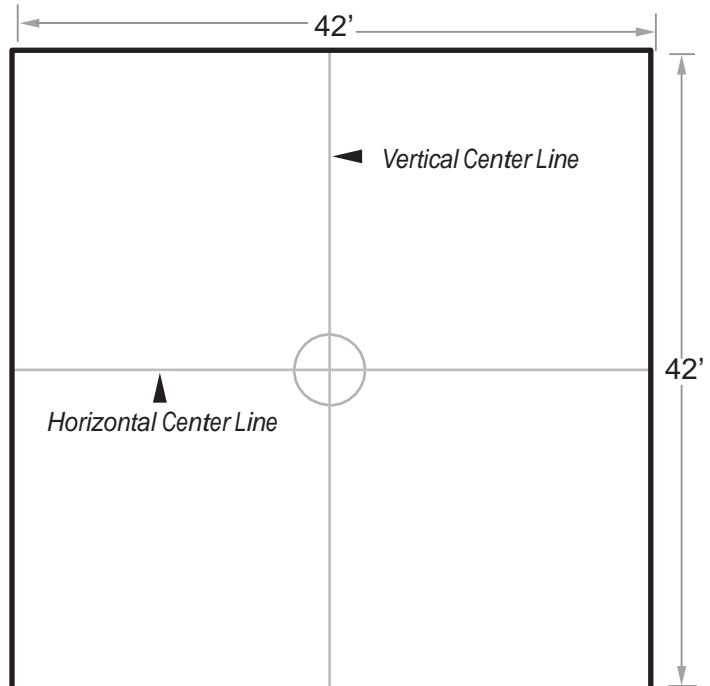


Fig. 1

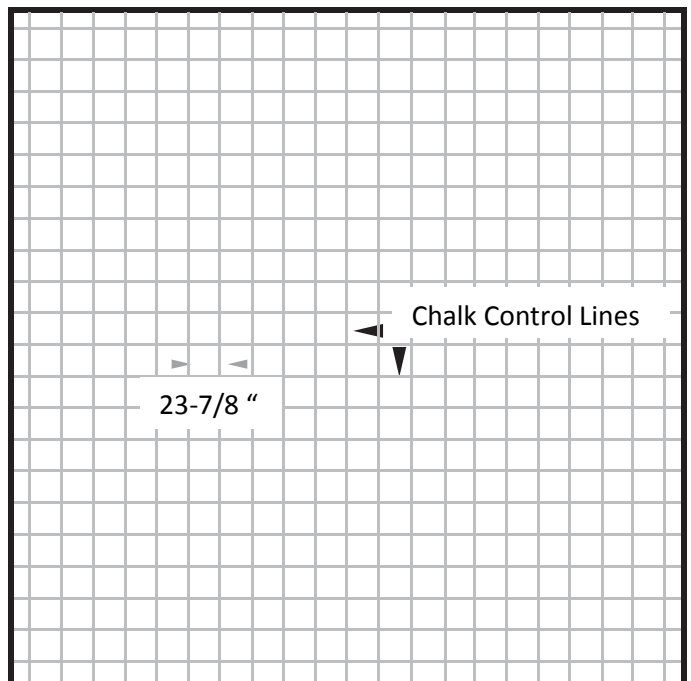


Fig. 2

## B - Striking Lines

From the center point in the room strike chalk lines in 23 7/8 inch increments across the room in both directions so that a grid pattern has been created across the entire room (**Fig. 2**).

## C - Install Keystone Tiles

Tiles that are permanently fastened to the subsurface in strategic locations throughout the installation are referred to as keystone tiles. Keystone tiles are fastened to the floor using the adhesive supplied with the order. See adhesive section at the back of the book for detailed instructions. The purpose of keystone tiles is to provide a fixed point of compression for the strategic tile rows.

Using the adhesive method at the back of the book, adhere keystone tiles in each of the four corners of the installation. Since perimeter cuts can be placed last, each keystone tile should represent a full tile (**Fig. 3**).

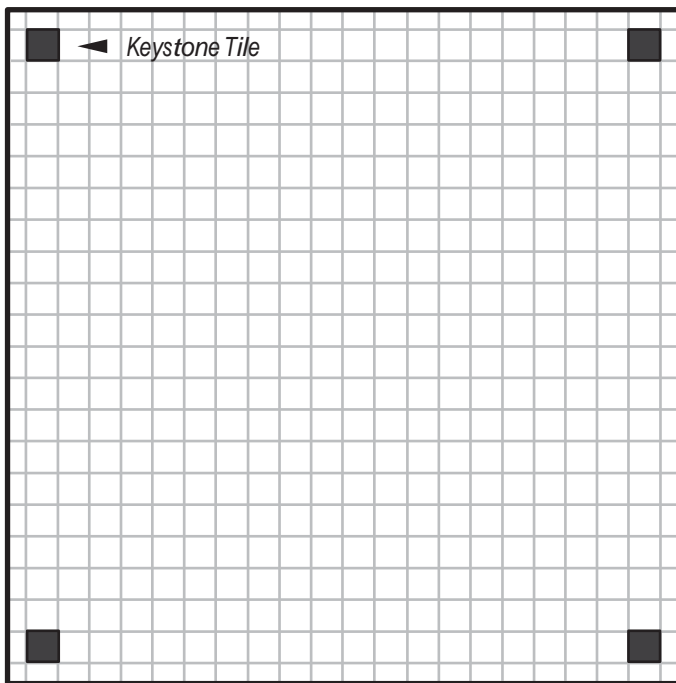


Fig. 3

Continue to place and secure keystone tiles every 7th tile throughout the installation (6 tiles spaces between keystones tiles) (**Fig. 4**).

**Note: Keystone tile adhesive must cure enough to prohibit movement before strategic tiles rows are placed. Average set time is 4 hours based on temperature and humidity.**

## D - Install Strategic Tile Rows

Strategic rows of tiles are compressed between the keystone tiles. Installation of strategic rows assists in breaking large sites into smaller areas that are much easier to compress into place.

- Begin by troweling the factory supplied adhesive in a 12" x 12" square centered where each tile will be placed. See adhesive instructions in back of manual.
- Install strategic rows of tiles beginning at opposite ends of the keystone tiles working inwards towards the center (**Fig. 5**).

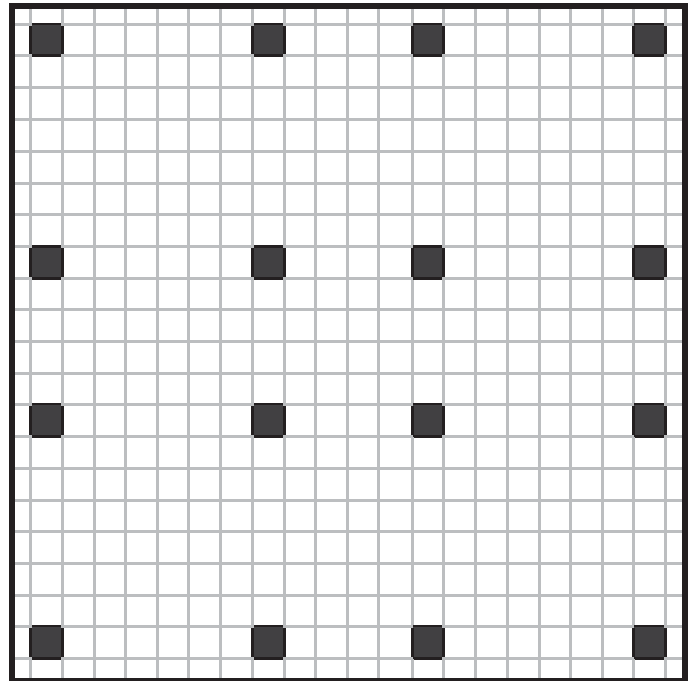


Fig. 4

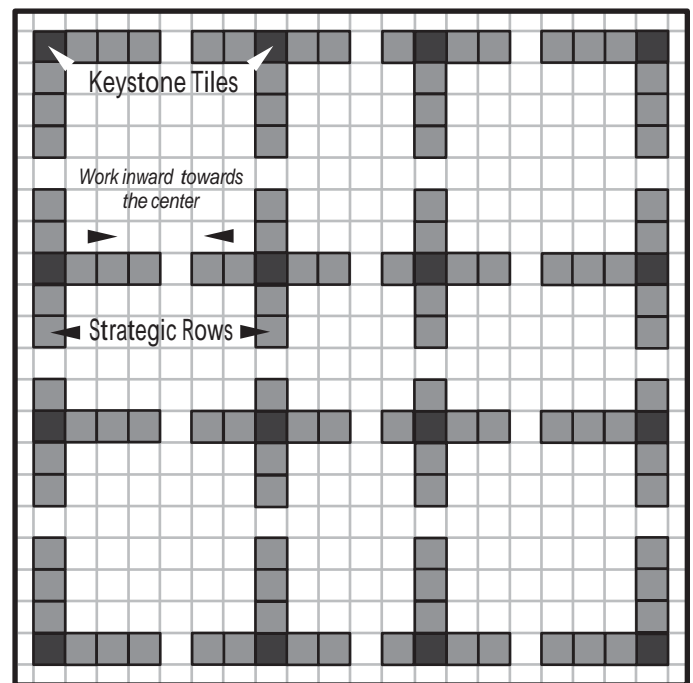


Fig. 5

- The final tile located in the middle of the strategic row is the compression tile and must be compressed into a space smaller than the tile. The process of compressing the tile into this space will force the other tiles to compress in each direction (**Fig. 6**).
- The locking mechanism on each edge of the tile should be engaged with the adjacent tile forcing the tile to buckle upwards. Once the locks are engaged, force the tile flat by applying downward pressure onto the tile (**Fig. 7**).
- The tile must be compressed into each strategic row within the adhesive working time to ensure the tiles are able to move before the adhesive cures.

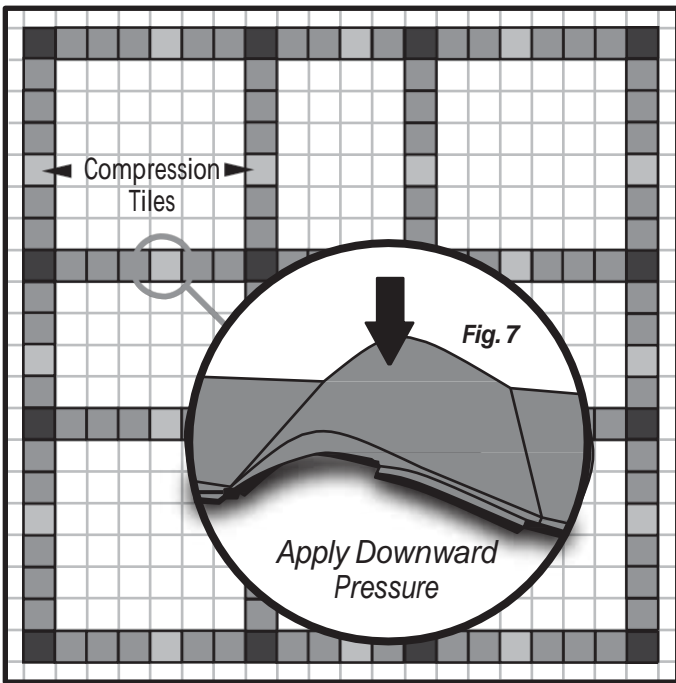


Fig. 6

**E - Install Compression Rows**

Compression rows are defined as the rows of tiles installed in the center of the strategic rows forming a cross hair in the center of each grid. Compression rows are installed before the remaining field tiles are installed. Compression rows of tiles are not adhered to the floor. Compression rows must be installed after the strategic row adhesive has cured (Fig. 8).

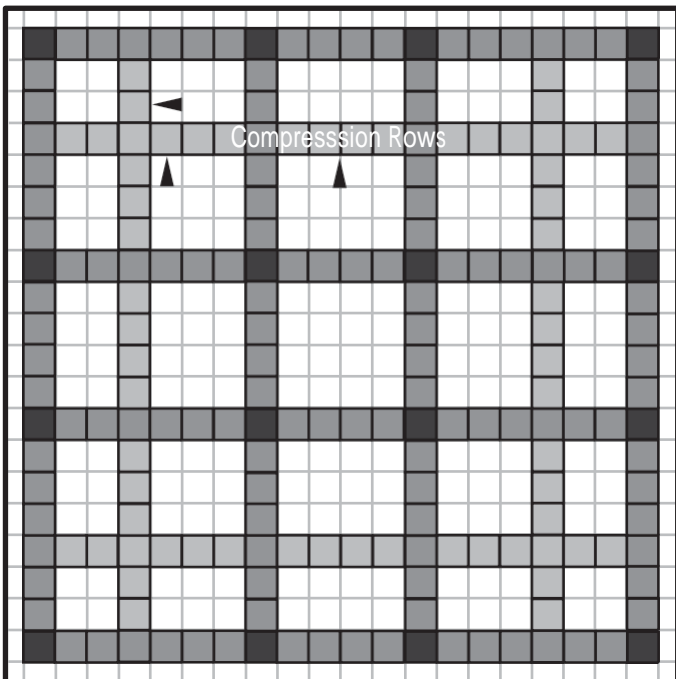


Fig. 8

**F - Installing Field Tiles**

The remaining tiles to be installed are referred to as the field tiles. Install field tiles according to the diagram shown in Fig. 9.

**G - Cutting in the Perimeter**

At each seam location along the chalk line around the perimeter of the room, measure the distance from the perimeter tile edge to the wall and add 1/16" to this measurement. Transfer these measurements onto the tile (Fig. 10).

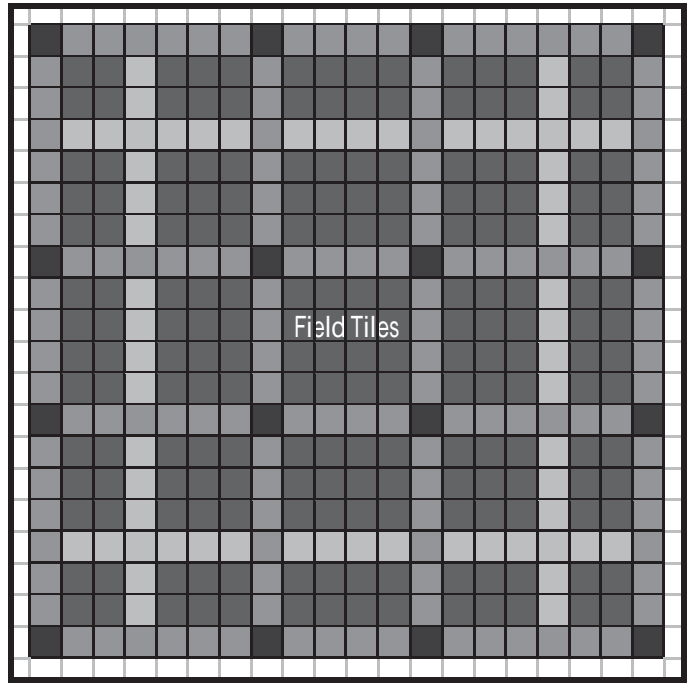


Fig. 9

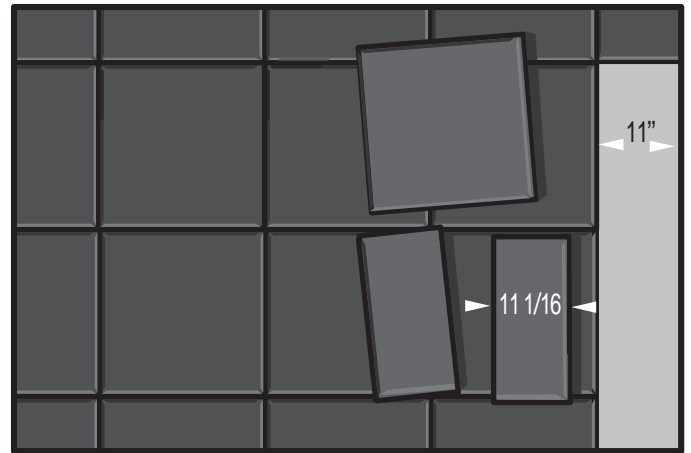


Fig. 10

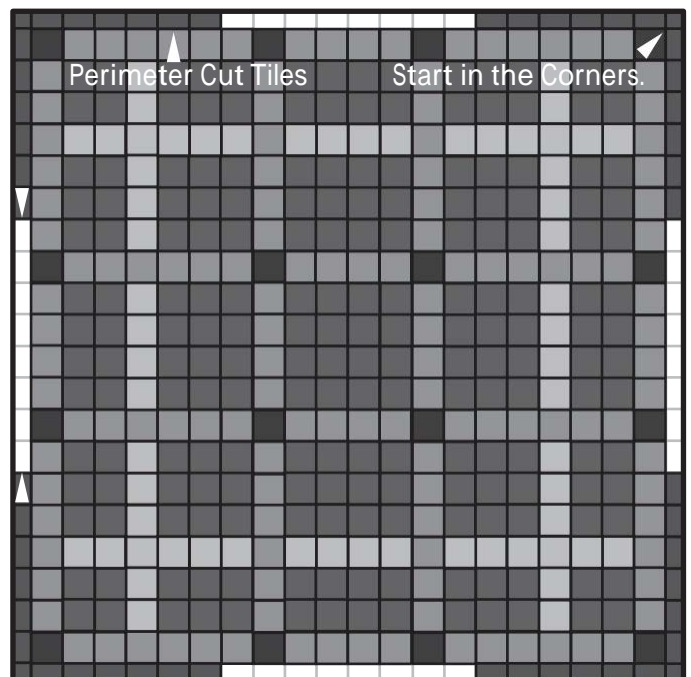


Fig. 11

Cut tiles with a razor blade knife and metal straight edge on the line but with a back-cut or under-cut of approximately 5 degrees. Install the cut tiles all the way around the perimeter. Start at the corners and work around (Fig. 11).

### H - Transitional Ramp Installation

If transitional ramps are being utilized on one or more sides they must be permanently secured to the floor using the adhesive application method below.

## ADHESIVE INSTRUCTIONS

Depending on the size and scope of your project different adhesives may be supplied with the order:

- Sika 221 is supplied for installations that require less than 2 gallons of adhesive. Sika 221 is supplied in 600 ml sausage tube format and will need to be dispensed using the adhesive gun supplied with the order.
- Greenfusion is supplied on installations that require more than 2 gallons of adhesive. Greenfusion is supplied in 2 and 4 gallon pails.

### Transitional Ramp Adhesion

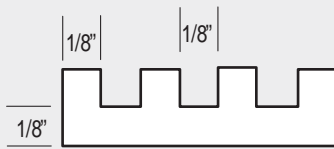
Prior to beginning the adhesive application process, measurements should be verified to ensure that the transitional edge pieces are placed in the exact position required based on the compression table and floor layout.

Adhere transition pieces by placing the manufacturer supplied adhesive between the transition edge and sub-floor. If using Sika 221, begin by dispensing several large beads of adhesive from the tube onto the subsurface.

Finish the adhesive using a 1/8th inch square notched trowel to obtain 100% coverage.

Once the transition ramp has been placed over the adhesive, it should be allowed to fully cure before any compressive force is placed on it.

### Recommended Trowels For Maximum Performance



**1/8" x 1/8" x 1/8" - Coverage 45 ft<sup>2</sup> per Gallon**

- Trowel size is suggested to maximize coverage of adhesive. Periodically check coverage of adhesive during installation. Uneven surfaces may require the use of either a leveling/patching material, or a larger notched trowel for proper coverage of adhesive.

### Keystone and Strategic Tile Row Adhesion

Prior to adhering any tiles check the drawing to ensure that the installed tiles represent the intended design.

Ensure that the control lines have been properly marked based on the attached compression chart.

Trowel the factory supplied adhesive in a 12" square, centered within the gridline location that will receive the tile. Only the 12" square in the center of the tile areas are to receive adhesive as shown in (Fig. 12).

Apply adhesive using a 1/8th inch square notched trowel. Apply adhesive in increments covering only the areas that will receive tiles within 15 minutes of adhesive application.

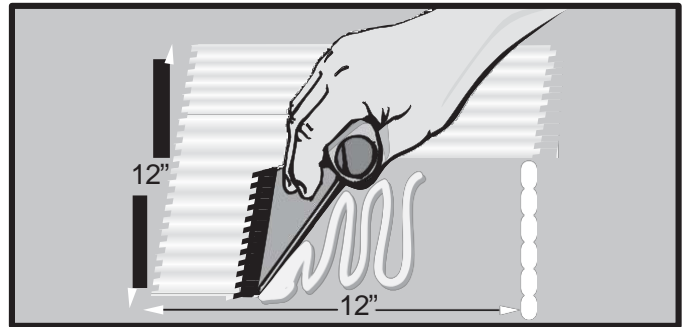


Fig. 12

**Note: The adhesive placed under keystone and strategic tiles must cure before compressive forces are applied.**

## INSTALLATION METHOD TWO - Glueless Method (Applications Smaller Than 2,000 sq.ft.)

Each Sterling tile measures approximately 24" (+/- 1/16th") x 24" (+/- 1/16th") from the factory.

After they are installed under compression they must measure a 23 7/8" X 23 7/8" meaning each tile must be compressed by 1/8th inch.

### A - Locate the Center Line of the Room

Locate, measure and chalk line the vertical and horizontal center lines in the room. Center lines should be shifted based on the best visual effect on the perimeter cuts. When possible perimeter cuts should be a minimum of 10" in width (Fig. 1).

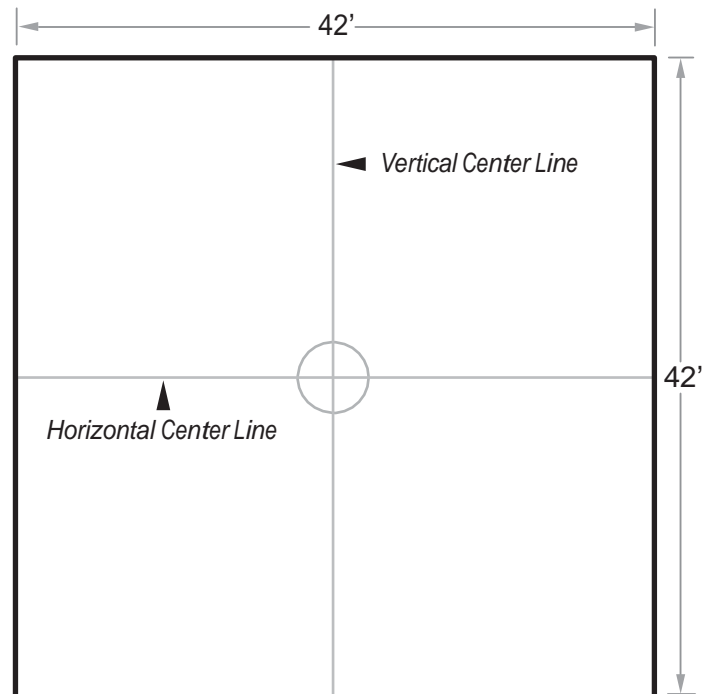
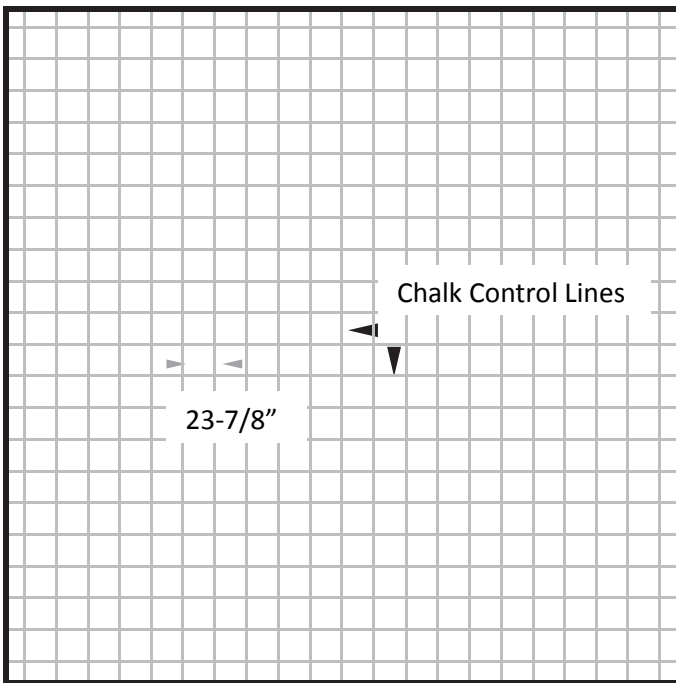


Fig. 1

### B - Striking Lines

From the center point in the room strike chalk lines in 23 7/8" increments across the room in both directions so that a grid pattern has been created across the entire room (**Fig. 2**).



**Fig. 2**

### C - Cutting in the Perimeter

In order to properly compress all of the field tiles, the perimeter of the room must be cut in and placed first.

At each seam location along the chalk line around the perimeter of the room, measure the distance from the line to the wall and add 1/16" to this measurement and write that dimension on the floor.

Continue this process at every seam around the perimeter of the room (every 23 7/8").

Transfer these measurement onto the tile.

Cut tiles with a razor blade knife and metal straight edge on the line but with a back-cut or under cut of approximately 5 degrees. Install the cut tiles all the way around the perimeter. Start at the corners and work around the room.

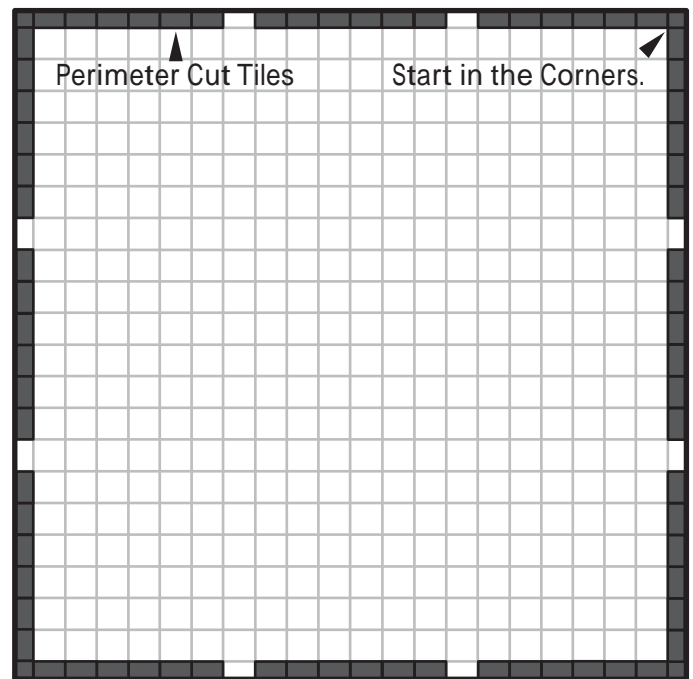
Perimeter tiles should be installed in 6 tile increments leaving a one tile space between each 6 tile row. This is done to make compression easier by balancing the compressive forces throughout the floor (**Fig. 3**).

Compress the final perimeter tiles into the remaining voids (see 'G' for further details).

### D - Transitional Ramp Installation

If transitional ramps are being used on one or more sides they must be permanently secured to the floor in order to provide a fixed point of compression for the field tiles. Prior to the installation of field tiles, locate the final position of the transitional ramps based on the attached **Compression Chart** and fix them in place with the

adhesive supplied with the order. Adhesive must be fully cured before compression can be applied to the transitional edge (see **adhesive instructions for additional information**).



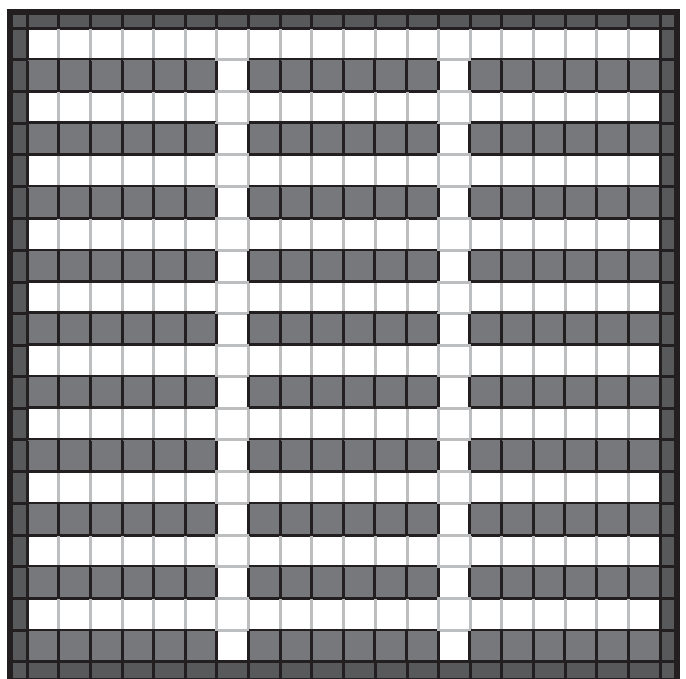
**Fig. 3**

### E - Installing Field Tiles

Install the field tiles running in one direction only across the room.

Install every other row of tiles only beginning at the perimeter cuts at each end of the room.

Tile rows should be installed in approx 6 tile increments leaving a one tile space between each 6 tile row. The number of tiles between spaces may need to be adjusted based on the room dimensions. (**Fig. 4**).

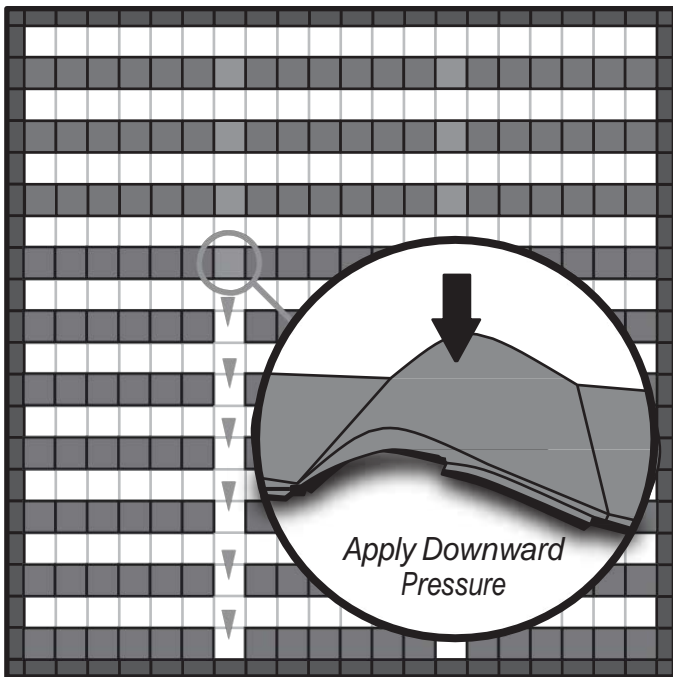


**Fig. 4**

## F - Installing Compression Tiles

Begin installing the tiles in the empty space located between the 6 tile increments. These tiles represent the compression tiles and will need to be compressed into a space smaller than the tile (Fig. 5).

The locking mechanism on each edge of the tile should be engaged with the adjacent tile forcing the tile to buckle upwards. Once the locks are engaged, force the tile flat by applying downward pressure onto the tile. This is normally done using a kicking motion or a sledge hammer.



INSTALL COMPRESSION TILES *Fig. 5*

*Note: The process of compressing a tile between rows will force the other tiles to compress and shift in opposite directions. In order to create equal compression across the floor and to minimize shifting during installation, certain tiles must be temporarily weighted down prior to the compression process. Place 5 or 6 tiles on top of each 6 tile row close to the center point (Fig. 6). Once the compression tiles have been installed, the tiles used as weight tiles can be shifted to the next row of tiles.*

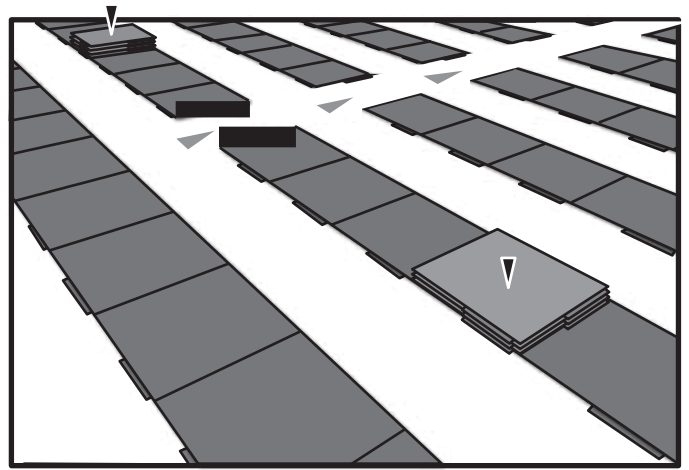
*Alternately, if the size of the installation crew permits, standing at the center point of the 6 tile rows during compression will achieve the same effect.*

## G - Installing Field Tiles in the Opposite Direction

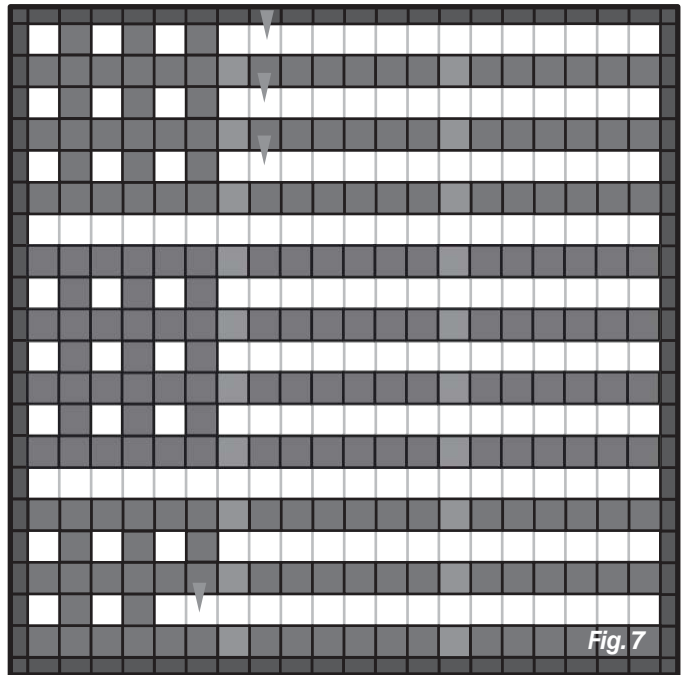
Once every other row of tile has been installed and compressed into place, begin installing every other row of tile in the opposite direction (Fig. 7), using the same process as described in Section 'F'.

## H - Install Compression Tiles

Install the compression tiles in between the 6 tiles increments in the same manner described in Section 'F'. Minimize shifting by applying weight to tiles as described in section F.

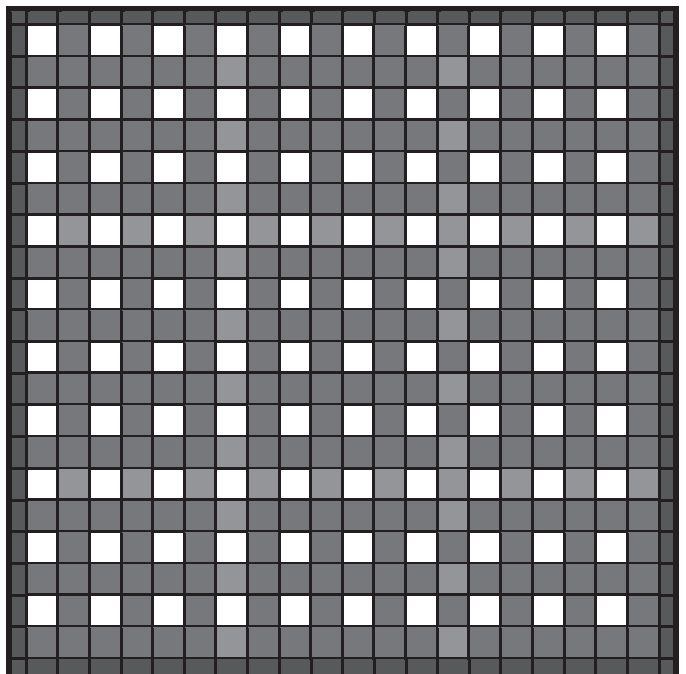


*Fig. 6*



*Fig. 7*

INSTALL FIELD TILES IN OPPOSITE DIRECTION



*Fig. 8*



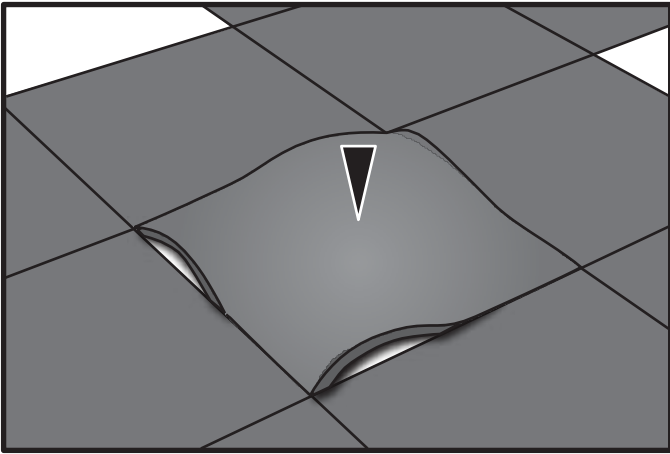
## I - Placing Final Compression

At this point in the installation your tile layout should look like the drawing shown in **Fig. 8**.

The remaining spaces in the floor are smaller than the tiles that will be placed and therefore each tile must be forced into place. The process of forcing each remaining tile into place will compress all of the remaining tiles in opposite directions.

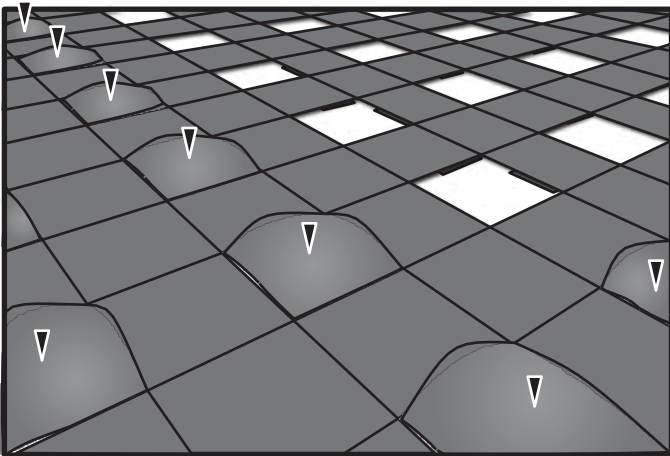
### STEP ONE

Begin by engaging the locks in each of the four corners with the tiles adjacent. This process will create significant pressure and will cause the compression tile to balloon (**Fig. 9**).



**Fig. 9**

Starting on the outer perimeter rows, continue to engage the four corners of each compression tile without attempting to compress the tiles (**Fig. 10**).

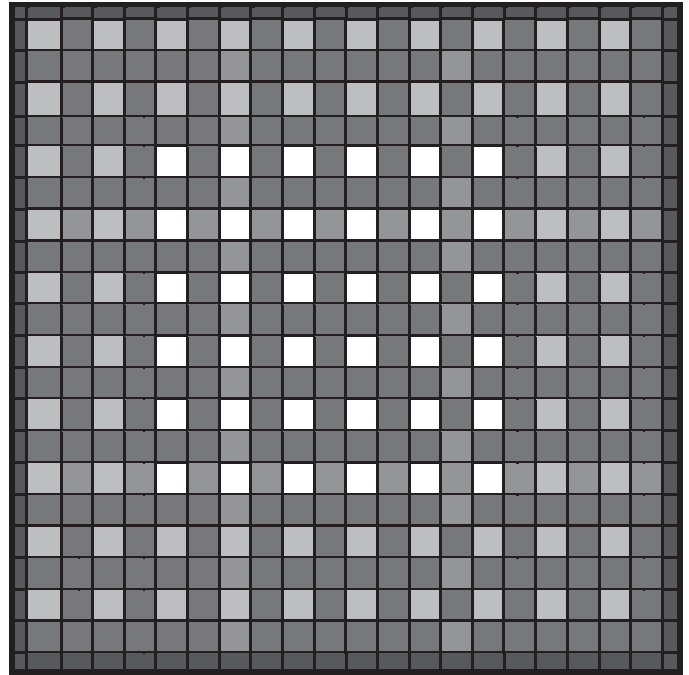


**Fig. 10**

### STEP TWO

Once all of the tiles around the perimeter have been partially installed by engaging the corners, begin compressing the tiles into place. Compressing the tiles can be labor intensive and is best accomplished by applying considerable downward force through a kicking action and the use of a sledge hammer.

Continue this process throughout the room using the two step method above. Install final compression tiles in large groups at a time, beginning with the one or two rows around the perimeter and then working throughout the floor (**Fig. 11**).



**Fig. 11**

Compress tiles throughout the remainder of the floor based on how the tiles are shifting during installation.

## Closing Statement

*The entire Greatmats team wishes to thank you for your careful consideration and decision to purchase a Sterling Athletic Flooring System. Your investment in Sterling is a wise one. Our manufacturer works hard to produce the highest quality products and our dedication to customer service does not end with the sale of our flooring. We are committed to the long term success of your project.*

Greatmats.com  
117 Industrial Ave  
Milltown, WI 54858  
877-822-6622  
info@greatmats.com  
revised 10/2016

