

Wood Floor Care Method Bulletin 1421



A complete guide for preparation, application and recommended maintenance for use with Multi-Clean® coatings on wood sports floors

Hi-Trac®
Poli-Mirro™ 450
Hi-Polamur™



STOP - READ BEFORE PROCEEDING

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Multi-Clean at (651) 481-1900 to arrange training.

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MAINTENANCE RECOAT (Dry Screen Method)

Follow this procedure when recoating over an existing finish. This method works with Court Shield waterborne products and Poli-Mirro 450. *Do not* recoat floors that have been previously waxed. The waxes must be completely removed by sanding the floor.

A yearly maintenance recoat will insure protection of the floor and rejuvenate appearance.

Step 1: Dust mop floor to remove dust, sand and debris. Carry a putty knife to scrape up gum or adhesive residue.

Steps 2-4 can also be used with Poli-Mirro 450.

Step 2: Preclean the floor with Hi-Trac. A sealed floor can be pre-cleaned with an automatic scrubber. Alternatively use Hi-Trac as a cleaning solution and tack-clean the floor.

Step 3: Roughen and dull the old finish by using a single disc machine (175 rpm) and a 120 grit screen. One screen is required for every 500 sq. ft (250 sq. ft./side) Overlap each pass slightly.

Step 4: Clean up dust residues by tacking the floor with clear water. Tack the floor until towels are completely clean and no more dust residue is present.

Step 5: Apply one or two coats of Pro-Floor Extreme with catalyst using the PADCO Professional Floor Coater. **Important:** Do not allow dry time to exceed 8 hours between coats, otherwise screening between coats will be required.



TIP: If possible, shut off the ventilation system in the gym during application of finish to minimize air borne dust settling into the wet finish. Turn back on when the finish begins to set to aid drying.

MAINTENANCE RECOAT: (Wet Screen Method)

The Wet Method for preparing floors helps eliminate the fine airborne dusts created with traditional methods. Floors suitable for this labor saving method must have been previously sealed and finished. Do not use this method on bare wood or wood with gaps between boards greater than 1/8 inch.



1. After dust mopping, begin the process by applying a solution of Hi-Trac at 4-6 oz./gal. with a mop. Work a 20'x20' section.



2. Scrub the solution with a 120 grit screen under a 175 rpm floor machine. Overlap each area slightly. Flip screen after 250 sq. ft.



3. Immediately pick up solution with a wet/dry vac. Do not allow solution to dry on floor. Continue working 20'x20' areas. **Remember:** Change screens every 500 sq. ft.



4. Rinse floor with plain water and a well wrung out mop.



5. Tack the floor with plain water and large white towels to remove remaining residues. Repeat process until floor is clean. To test if floor is clean, wipe floor after it has dried with bare hand. If residue is found, repeat.



6. Apply finish. For Court Shield waterborne products, wait 1 hour after tacking floor. For Poli-Mirro 450, wait overnight before applying.

HI-TRAC INTENSIVE CLEANING PROCESS

PREPARATION INSTRUCTIONS

Preparation is critical to performance.

1. Sweep/Dust Mop

Floor: Use a large dust mop to collect sand, garbage and debris.



2. Always carry a putty knife or razor scraper to remove gum, labels and/or tape residue left on the floor. You can use **Mastery dL** to remove adhesive residue by applying a small amount to a cloth and rubbing the residue until it is removed.

3. **Hi-Trac Intensive Cleaning Procedure:** This is the most important procedure and must be followed EXACTLY.

a. Equip the automatic scrubber with black pads. Fill the solution tank with water and add **HI-TRAC** at a rate of 8 oz/gal.



b. Double scrub procedure: With the squeegee in the up position and vacuum off, begin scrubbing the floor with a solution flow rate about 1/2-3/4 the fastest rate. Walk slowly up and down the floor until 1000 sq. ft. are wet with cleaner solution.

c. While the floor is wet, look for any deeply embedded shoe or ball marks and agitate with a hand pad if necessary.

d. Scrub and pick up: Go back to the beginning and scrub the floor with the squeegee down and vacuum on to pick up cleaning solution. Do not dispense cleaning solution.

e. Turn the black pad over and repeat steps b-d on the next 1000 sq.ft. Replace the black pad after scrubbing 2000 sq.ft.

4. **Scrub Rinse Procedure:** This procedure insures all residues are removed and the floor is ready for coating.

a. Empty the solution tank of any remaining cleaning solution, and fill with clear water. Add **Century Maintenance** as a rinse aid at a rate of 1 oz/gal.

b. Scrub the floor with the automatic scrubber using a black pad dispensing the rinse solution at 1/2 the fastest rate. *Note:* You do not need to change the black pad during this process.

c. Fill a mop bucket with water and add 1 oz/gal Century. Using a clean mop, rinse corners and edges where the automatic scrubber has difficulty reaching.

5. **Tack Procedure (Optional):** If the prepared floor is left for several hours or overnight prior to coating, tacking is highly recommended.

Fill a mop bucket with plain water. Place 1-2 large white towels in the solution. Wring out a towel so that it is damp, wrap around a broom and push across the floor to remove any remaining residue.



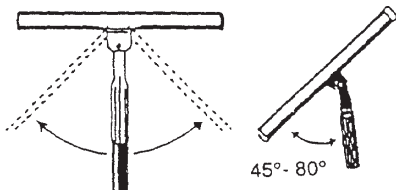
The floor is now ready for coating.

APPLICATION WITH THE PROFESSIONAL FLOOR COATER

The Professional Floor Coater is ideal for applying Court Shield finishes. The application is fast and results in uniform coverage. It is available in 18 and 24 inch lengths.



Preliminary: You should have a plastic garden sprinkling can that can hold 1-2 gallons of product. Your Professional Floor Coater equipped with a new clean pad and handle should be ready. Angle the Floor Coater head to approximately 45 degrees. Tighten the nut so it doesn't move. Plan your start point on the farthest side of the gym and your end point at the most convenient exit. Having 2 people to apply the coating is most efficient. One will apply the coating with the applicator while the other person will pour the product on the floor.



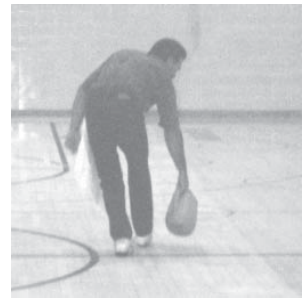
Step 1: Slide pad over applicator head, Set head at 45 degrees.

Step 2: Begin applying product, use a garden type sprinkling can (sprinkler head removed) to pour a bead of product onto the floor. Apply with the coating following the direction of the wood.

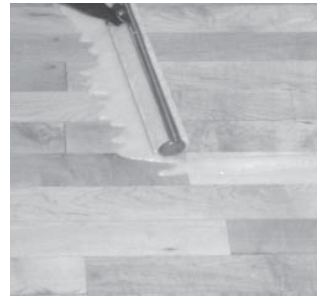
Step 3: Continue pouring and applying a bead of product ahead of the applicator as needed.

Step 4: About 4-5 passes from the planned exit, apply product more sparingly. Do not let the applicator dry out, otherwise streaks will result. On the last run, if excess product is on the floor, use towels to absorb the excess. DO NOT attempt to feather excess product onto the floor, puddles will result.

Step 1. Begin applying product along the far wall. Apply a line about 3-4 inches in width down the length of the gym about 6 inches from the wall edge.



Step 2. Pre-wet the applicator in the line of finish then begin applying by pushing the excess finish toward the opposite side of the floor (snowplowing). Continue pouring and applying product across the floor. Take care not to allow excess product to flow off the opposite end of the applicator on

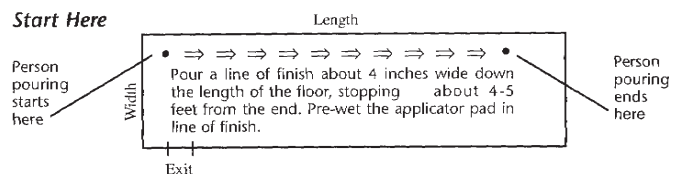


turns at the end of each run. If this happens, gently squeeze out excess material from the applicator, then gently feather out the excess material on the floor.

Step 3. About 4-5 passes from the planned exit, pour product onto the floor more sparingly. Do not let the applicator dry out, otherwise streaks will result. On the very last run, if excess product is on the floor, collect it near the exit point and soak up with towels or rags. Do not attempt to feather this excess product onto the floor.



Step 4: Allow the floor to dry 3-6 hours depending on air flow and humidity. Reapply a second coat as recommended.



The floor may be opened to normal traffic after the coating has cured a minimum of 24 hours.

REFINISHING WOOD FLOORS

Hi-Polamur Sanding Seal Poli-Mirro 450

HOW TO PREPARE A GYM FLOOR FOR FINISHING

New Floor: Allow the newly installed wood floor to dry out at least six weeks before finishing. The new floor then must be sanded prior to sealing and finishing.

Sanding

Sanding requires professional sanders or experienced maintenance people to do a good job. One improper sanding can ruin a floor.

If the cut is too deep, down to the tongue and groove, splintering will occur and the floor's structural strength will be lost.

1. Remove the quarter-round moldings. Sweep or vacuum the floor to remove excess dirt and soil, as it will clog the sandpaper.
2. Make the first cut with the grain, using #2 1/2 sandpaper for new floors and open coat sandpaper for old floors. Do all trim work with an edger, using the same sandpaper grade. Sweep or vacuum to remove dust.

NOTE: Do all sanding with a drum sander. When operating the sander, keep it moving at all times or it will cut deep ruts into the floor.

3. Use #1 1/2 sandpaper for the second cut, sanding with the grain. Vacuum or sweep to remove dust.
4. Use #00 sandpaper for the final cut, sanding with the grain. Make certain when sanding old floors that all the old finish is removed by the end of the third cut. Screen floor with #120 grit screen. Vacuum or sweep to remove dust. Go over the floor with a tack rag at least twice.

How to Finish New Sanded Floors

After an old seal is sanded, the bare wood floor should not go unattended for any length of time before sealing. This is especially important during high humidity conditions to prevent excess moisture uptake by the wood floor.

A bare wood floor must be sealed with a sanding sealer. Hi-Polamur sanding seal penetrates the wood and creates a base for applying finish.

Do not apply seal to the bare wood floor if the moisture content of the wood is above 10%. Check and document the moisture content of the floor using a hand held moisture meter before sealing.

When applying sealer and finish, use a lambswool applicator. Apply across the grain, then pull out with the grain.

1. Apply one coat of Hi-Polamur Sanding Seal. Allow it to dry 18-24 hours with adequate fresh air ventilation. Buff the floor with #120 grit abrasive screen under a floor machine (maximum of 250 sq. ft. per side of screen). After buffing, then tack rag at least twice.
2. Apply a second coat of the product. Allow to dry 18-24 hours. Buff again with #120 grit abrasive screen, vacuum, then tack rag at least twice.
3. Lay out the court with masking tape as required for specific athletic activities. Apply the marking enamel with a paint brush and allow it to dry at least 24 hours. Remove tape within one hour after painting.
4. After minimum of 24 hours dry, lightly machine buff lines with #0 steel wool or a used 120 grit screen.
5. Apply the first coat of Poli-Mirro 450 in the same manner as Hi-Polamur Seal. Allow the finish to dry at least overnight. No screening is required if the product is recoated with the specified recoat interval.

Recoat Interval

Poli-Mirro 450, 17-24 hours (maximum 3 total coats)

6. Apply the second coat of Poli-Mirro 450. Allow at least 24 hours drying time prior to subjecting the floor to light traffic. Allow 72 hours drying time or longer prior to athletic activities.

Recoating Finished Floors

Use the method on page 2 or page 3 for Maintenance Recoating.

Marking Enamels

Multi-Clean recommends Benjamin Moore Impervo Gloss Enamels.

Apply game line enamel. Allow to dry overnight (12 hours minimum). Lightly roughen surface with a used 120 grit screen or green pad. Clean up dust residues, then apply Poli-Mirro as directed.

How to Avoid a Bad Finish

- Use applicators which are absolutely clean.
- Never attempt to rub the finish into the wood. Always flow it on in thin even coats.
- Two thin coats of finish will give better results than one heavy coat.
- Thoroughly clean application equipment with solvent after each application of finish.
- Make certain there is fresh air ventilation for proper drying and provide a “dust-free” atmosphere.
- Allow final coat to dry at least 72 hours before subjecting floor to gymnasium activity.
- Soaps or gritty scrubbing powders should not be used in your preparation procedures because they are difficult to rinse and can result in product failure.
- Check all equipment prior to use and clean it immediately after use.
- Clean every lambswool applicator before using. New applicators often contain loose fibers which could mar the appearance of the coating.
- If a dance wax or solvent-based wax has been used, it will not be removed by water scrub method. Scrub repeatedly with Mineral Spirits and pick up immediately.
- All vertical surfaces in the gym (bleachers, etc.) should be wiped clean to insure a dust-free atmosphere.
- Prior to the use of any cleaning procedure, remove all gum and other built-up soil.

Court Shield HI-TRAC Maintaining Wood Floors

To keep finished wood floors looking their best and maintain a high traction surface, Multi-Clean has developed Hi-Trac. Safe for sealed wood floors, Hi-Trac is effective at cutting oily residues that can make floors slippery, and it will not leave a dulling residue.

Daily/Weekly

Dust mop daily with an untreated mop to remove debris and abrasive dirt and soils.

Clean using **Hi-Trac** at 2-6 oz./gallon by: Auto-scrubbing or tack cleaning or light damp mopping.

Monthly

Deep scrub to remove oily deposits, black marks, etc. using **Hi-Trac** at 16 oz./gallon. Use an auto-scrubber or floor machine and wet dry vacuum.

Yearly Recoat

Dry Screen Method: Pre-clean floor using **Hi-Trac** at 24 oz./gallon in an autoscrubber or by tacking. Allow to dry. Screen floor as usual to prepare surface for coating.

Wet Screening: Use **Hi-Trac** at 8 oz./gallon in a spray bottle during screening to keep airborne dust to a minimum.

HOW TO PREPARE A TACK RAG

To insure a high quality appearance to the finish, the floor must be free of all traces of fine dust particles. A tack rag is excellent for picking up fine dusts that vacuums can miss as well as oily residues.

To prepare a tack rag:

1. Use a lint free, absorbent-type cloth such as heavy toweling. Fold the cloth lengthwise several times.
2. Pour the recommended tacking solution onto the towel and wring out as dry as possible.
3. Wrap the towel around a large, clean, push-broom.

Push the broom along the floor making sure to change the position of the cloth on the broom frequently to insure maximum dust pick-up and cleaning efficiency.

RECOAT CALCULATOR GUIDE

STEP 1:

MEASURE FLOOR SURFACE

(Multiply length x width for square footage)

STEP 2:

MATERIALS CHECKLIST OF EQUIPMENT AND PRODUCTS NEEDED

A. Products

- Hi-Trac (no rinse cleaner)
- Dust Fast Dustmop Treatment
- Poli-Mirro 450
- Hi-Polamur Sanding Seal

B. Equipment

- Low speed single disk machine with pad driver
- Wet/dry vacuum
- (4) Mop buckets with wringers
- (3) Mops with handles
- 120 Grit screens (1 per 500 sq. ft.)
- (4) Blue pads
- (2) - 50 ft. Extension cords
- Putty knife
- 5 lbs. Turkish toweling
- ¾" masking tape (if lines are to be patched)
- 2" Paint brushes (for line touch-up)
- Padco floor coater
- Pour can
- (2) Floor coater refills
- Push broom
- Dust mops

STEP 3:

PRODUCT ESTIMATE FOR SCRUB AND RECOAT

A. Preparation

_____ divided by 6,000 sq. ft./gal. = _____ Hi-Trac
(sq. ft.) (gallons)

B. Seal Application

_____ divided by 400 sq. ft./gal. = _____ Hi-Polamur
(sq. ft.) (gallons)

C. Finish Application

_____ divided by 600 sq. ft./gal. = _____ Poli-Mirro 450
(sq. ft.) (gallons)

STEP 4:

PRODUCT ESTIMATE FOR MAINTENANCE

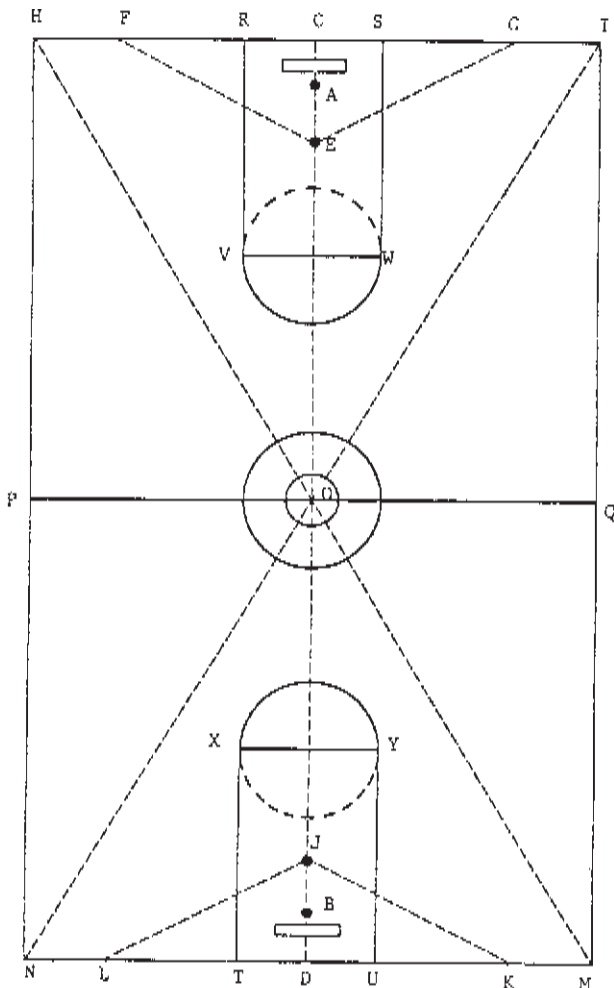
_____ Gallons of Hi-Trac
(need 2 gallons per 10,000 sq. ft. per month)

_____ Gallons of Dust Fast Dustmop Treatment
(need 5 gallons per 5,000 sq. ft. per year)

LAYOUT AND LINING OF A BASKETBALL COURT

Material & Equipment

- * An accurate diagram of the gym floor specifying all dimensions and measurements
- * 8-10 rolls of three-quarter inch masking tape and a good quality taping machine
- * A plumb bob with 15 feet of cord
- * Chalk line about 150 feet and white chalk
- * A high quality paint brush for lining (1.5" or 2" width)
- * High gloss, fast drying marking enamel (specify colors necessary.)
- * Carpenter's square
- * 100 foot steel tape measure
- * Pencil ("B" soft lead)
- * Hammer
- * Hand or push drill, 1/16" & 1/8" drill bits
- * 6-penny finishing nails
- * 18-penny casing nails
- * Straight edge
- * Quality cutting tool for cutting masking tape
- * A steel square for checking all corners
- * 2x4 piece of lumber 6 1/2" long



PROCEDURES

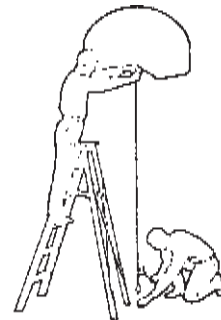
Old Court

When relining and refinishing an old court, if the lines are correct, make a nail hole at all corners of the court, and at the exact center of all circles. This will allow you to reline without remarking the court.

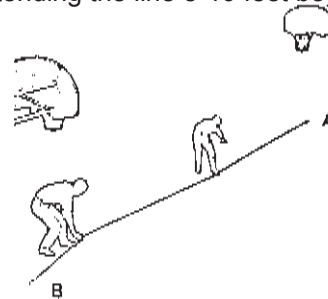
New Court

When lining and finishing a new court or when relining an old floor before refinishing, follow the procedures listed and diagrammed below. For proper court layout and measurements refer to appropriate court diagrams. (High school, College, NBA or International.)

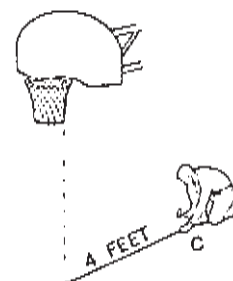
1. Begin court layout by making sure that the backboards are in the game position. All subsequent measurements and markings are predicated on this very important initial step.
2. From the center of the face of each backboard, drop a plumb line and mark points A and B with chalk.



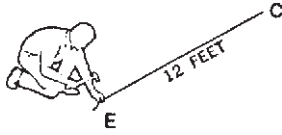
3. Snap a chalk line through these two points, A and B, extending the line 8-10 feet beyond them.



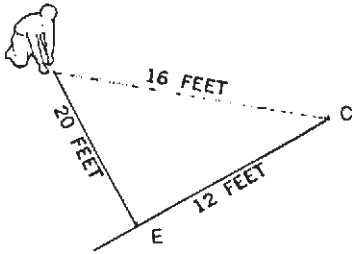
4. From point A measure back toward the baseline 4 feet and chalk mark point C.



- From point C measure 12 feet toward the center court to point E and lightly tap a small nail. Drive the nail only deep enough so that it is firm.

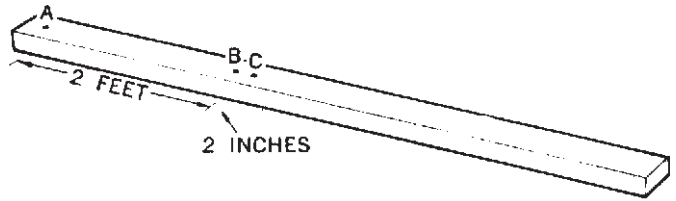


- From point C measure 16 feet to the side and with chalk strike an arc.

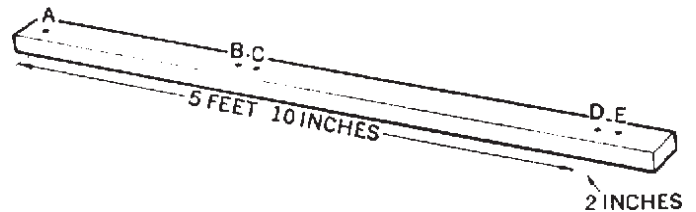


- From point E measure 20 feet toward the baseline and with chalk strike another arc. Where the two arcs intercept is point F. Repeat this procedure on the opposite side for point G.
- Snap a chalk line through points F, C and G, extending the line well beyond points F and G. You have now formed the court base-line.
- From point C measure out the base-line 25 feet in each direction and chalk mark points H and I.
- At the opposite end of the court, repeat Steps 4-9 for points J, D, N, L, K and M.
- Snap a chalk line between points H and N. Repeat procedure on opposite side of court between points I and M. These lines form the side lines of the court.

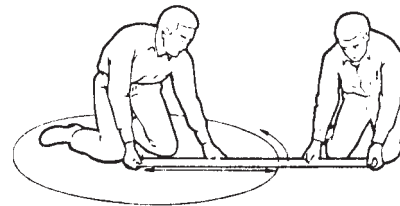
- To find the center of the court, join the corners diagonally with a chalk line, H to M and I to N. Chalk mark this point O. Verify this point as the court center by measuring the distance from O to C and O to D. These measurements must be the same.
- On court side lines measure distance determined by O to C and O to D and chalk mark points P and Q.
- Snap a chalk line connecting points P, O and Q. This forms the center line of the court.
- Using point O as the center, draw the center jump circle (2 foot radius), then the outer circle (6 foot radius) as follows:



- * Bore 1/16" hole A an inch from the end of a 2x4. Bore hole B, exactly on center, 2 feet from center of hole A and hole C, exactly on center, 2 inches from hole B. Hole B and C should provide a snug fit for soft lead pencil. The pencil points should be exactly 2 inches apart. The point of pencil B should be exactly 2 inches from the center of hole C.



- * Place nail in hole A in the exact center of the court and have someone hold the 2x4 while you mark out the circle. The inside measurement should now be exactly 2 feet to the center of the court. (International court markings are an exception, see diagram for specifics.)



- * Exactly 5 feet 10 inches, from center of hole A bore hole D. Two inches from center of hole D bore hole E. Center of hole E should be exactly 6 feet from the center of hole A. Now place soft lead pencils into holes D and E. The points of the pencils should be exactly 2 inches apart. Have someone place nail in hole A in the exact center of the court and steady the 2x4 while you scribe the outside circle. The inside measurements should be exactly 5 feet 10 inches from the center of the court.
- From point C measure 6 feet in either direction along the baseline and chalk mark points R and S. Repeat at the opposite end of court for points T and U.
 - Snap a chalk line between points R and T. Repeat between points S and U.
 - From point R measure 19 feet along line RT and mark point V. Repeat from point S for point W from T for point X and from U for point Y.
 - Snap a chalk line between points V and W, and points X and Y to form the two free-throw lines.
 - The intersection of line CD with lines VW and X Y is the center point of the two free throw lines.

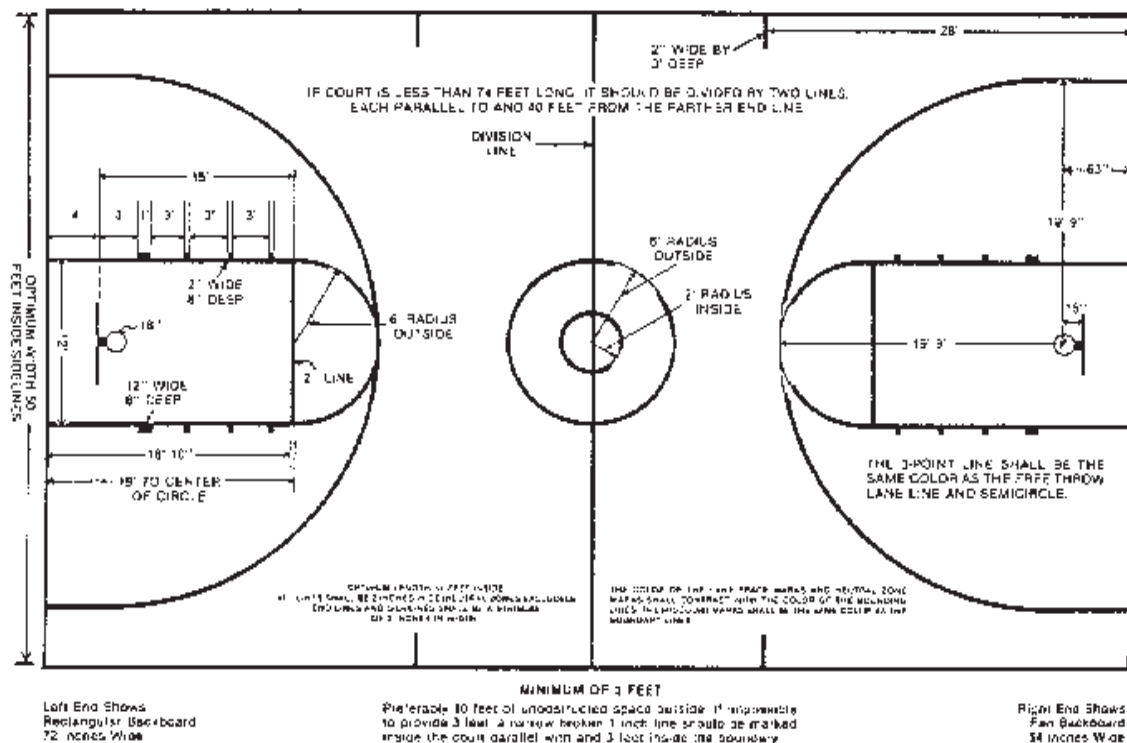
- Draw the two free throw circles, each with 6 foot radius. The half of the circle away from the basket is solid and the half of the circle toward the basket is broken. The broken line has 8 marks, 16 inches long and 7 spaces 14 inches long. (See specific court diagrams for details.)
- Using the appropriate basketball court diagram, install the restraining lines along each side of both free throw lanes. Then install the 2"x3" offensive court lines along each side line at both ends of the court.
- Before painting lines, verify all measurements to make certain they are correct and accurate.

Marking

When marking a gym floor follow these instructions carefully:

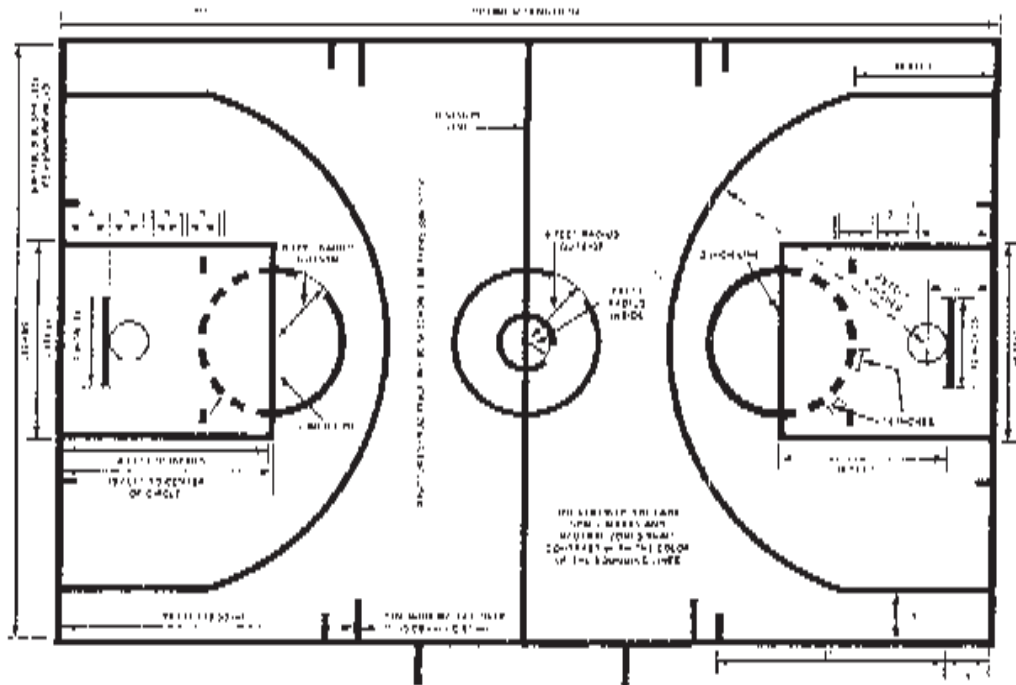
- Use a good tape marking machine.
- When applying paint, do not allow it to pool.
- Allow the paint to dry over night.
- If you allow more than 24 hours dry time, scrub the lines with #120 grit screen to insure adhesion of the finish.
- Remove the line marking tape 2-4 hours after painting.
- Remove all chalk lines before lining.

BASKETBALL COURT DIAGRAM HIGH SCHOOL



BASKETBALL COURT DIAGRAM

NBA



NCAA

