

Manufacturer's Installation Instructions

Building Code requirements vary from area to area. Check with local authorities for Building Code requirements in your area. Carefully read all Installation Instructions before proceeding with your Cultured Brick® products application. Observe safety precautions.

Estimating the Brick Required

A. Determine the amount of Cultured Brick® products needed by measuring the area to be covered. Measure the length times the height to arrive at the square footage of flat brick needed. Subtract square footage for window and door openings. Measure the linear feet of outside corners to determine the amount of corner pieces needed. One linear foot of corner pieces covers approximately 1 square foot of flat area. Subtract the flat area covered by the linear feet of corner pieces from the square footage of flat brick required. You may wish to obtain some extra brick to allow for cutting and trimming.

B. One carton of Cultured Brick® flat covers 10 square feet using a 3/8" mortar space (joint) between bricks.

C. One carton of Cultured Brick® corner pieces covers 7 linear feet of outside corner using a 3/8" mortar space (joint) between bricks.

D. Cultured Brick® products are not suitable for use on any area subject to foot traffic.

Helpful Tools



Sundry Material Requirements

A. MORTAR/GROUT

Using Pre-mixed Type N mortar or components from Table 1, mix to a firm, moist consistency. Mortar that is too dry and crumbly will not provide proper bond. Mortar that is too wet will be weak and messy.

Table 1 - Proportions for Mortar

Parts By Volume				
Mortar Type	Portland Cement or Blended Cement	Masonry Cement Type N	Hydrated Lime or Lime Putty	Aggregate
N	1	--	1	4 1/2 to 6
	--	1	--	2 1/4 to 3

B. MORTAR COLOR

Tinting mortar complements the color of the brick being installed. Example: use tan mortar with earth-tone bricks. This will greatly enhance the appearance of the finished installation. Regular mortars can be tinted to complement your Cultured Brick® products using iron oxide pigments available from your dealer.

C. WEATHER-RESISTANT BARRIER

- Barrier shall be equal to U.B.C. Standard No. 14-1 for Kraft waterproof building paper or asphalt saturated rag felt. **Note: Weather-Resistant Barrier must be used on all exterior and interior mortar applications except for those over masonry, concrete or stucco.**

D. METAL LATH

- Minimum 2.5 lb. expanded metal lath (diamond mesh) galvanized. Black metal lath (rust inhibitive) may be used on interior applications.
- Or 18 gauge galvanized woven wire mesh.
- For metal buildings & open stud construction - minimum 3.4 lb. 3/8" rib expanded galvanized metal lath.
- Or other code accepted mesh or lath.

E. FASTENERS

- Galvanized nails, staples, concrete nails.
- United States Gypsum Company's I-1/4" type S-12 Pancake Head Super Tite screws. (Used for installation to metal surfaces.)

F. MASONRY SEALER

- Silane based breather type sealer (if required).

Surface Preparation for Mortar Installations

Using the chart below, determine the correct surface preparation for your installation.

Table 2	
WALL SURFACE	INTERIOR & EXTERIOR PREPARATION REQUIRED
Rigid Backwall Wallboard Plywood Paneling Wall Sheathing Concrete Board Polystyrene Insulation Board Installed Over a Rigid Backwall	Cover sheathing with a breather type weather resistant barrier, lap joints 4" shingle fashion. Then, in accordance with local building code, lap and install lath or mesh using galvanized nails or staples 6" on center vertically, penetrating studs a minimum of 1". Continuously wrap weather resistant barrier and metal lath a minimum of 16" around all outside and inside corners. (Fig. A)
Clean & Untreated Concrete Masonry Stucco	No preparation needed. Examine newly poured concrete closely to ensure that its finished surface contains no release agents (form oil). If it does contain form oil, etch surface with muriatic acid, rinse thoroughly and/or score with a wire brush (Fig. B).
Dirty, Painted or Sealed Concrete, Masonry, or Stucco	Sandblast or water blast to original surface (remove sandblasting dust by washing) or securely attach lath.
Metal Buildings	Lap and install paperbacked 3/8" rib expanded metal lath to metal cladding supports of 20 ga. to 12 ga. using United States Gypsum Company's 1-1/4" type S-12 Pancake Head Super Tite screws. Screws must penetrate 3/8" beyond the inside face of metal surface. Screws are to be installed on centers equal to 1 screw/sq. ft. and shall not exceed 6" on center in one direction. Apply 1/2" to 3/4" scratch coat and allow to dry 48 hours.
Open Studs Polystyrene Insulation Board Installed Over Open Studs	Lap and install paperbacked metal lath to studs using nails which penetrate a minimum of 1" at 4" on center. Apply 1/2" to 3/4" scratch coat and allow to dry 48 hours.

RIGID BACKWALL - WALLBOARD, PLYWOOD, PANELING AND WALL SHEATHING

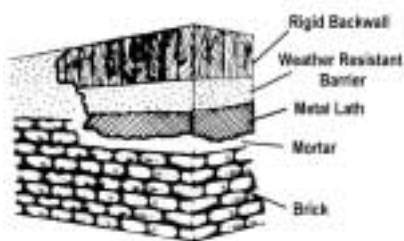


Figure A

CLEAN AND UNTREATED CONCRETE, MASONRY OR STUCCO

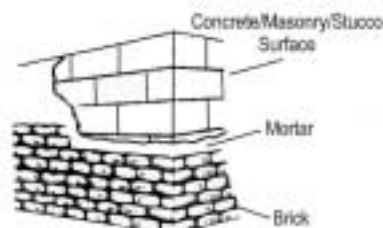


Figure B

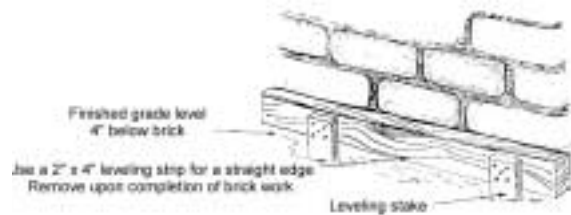
SEALED, DIRTY, OR PAINTED CONCRETE, MASONRY OR STUCCO: Clean to original surface or, if unable to clean securely, attach lath with concrete nails.

Working with Mortar

(EXTERIOR AND INTERIOR APPLICATIONS)

INSTALL A TEMPORARY STARTER STRIP (Exterior Applications Only)

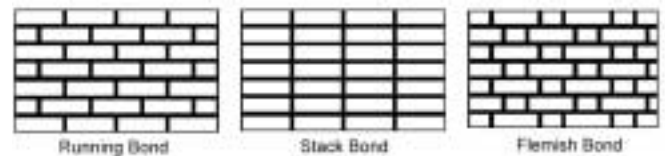
Install a temporary starter strip to ensure a level installation on the first course of bricks.



LAY OUT WALL AREA

Choose the type of wall pattern desired. Allowing for a mortar joint of approximately 3/8", calculate and mark off the number of courses required. Adjust joint size to minimize horizontal cutting. Run a level guide line to ensure proper placement of bricks.

Mix brick from several boxes at a time to achieve a pleasing blend of color and texture.



Wetting Exterior Walls.

Dampen concrete, masonry, or stucco wall surfaces with water prior to the application of the brick.

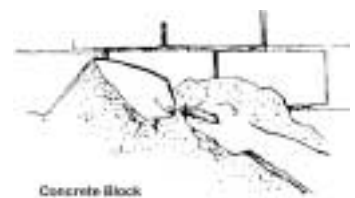
Wetting the Brick. The back of the brick should be completely damp, but free from surface water at the time of application.



METHOD 1:

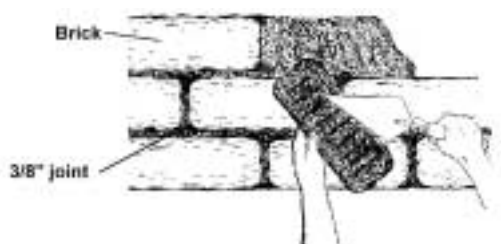
A. Applying Mortar to Wall

Using a plasterer's or mason's trowel, apply mortar 1/2" to 3/4" thick to prepared surface area. Do not spread more than a workable area (5 to 10 square feet) so that mortar will not "set up" before bricks are applied.



B. Setting the Brick

Completely cover the back of the brick with a 3/8" thick coating of mortar. Push the brick onto the mortared surface until mortar oozes out around the edges of the brick.



METHOD 2:

Applying Neat Cement

A paste of neat Portland cement shall be brushed on the wall surface area and the back of the brick. In addition, Type N mortar shall be applied to the wall surface area and the back of the brick. Sufficient mortar should be used to create a slight excess to be extruded out around the edges of the brick. Press brick into place to ensure a full mortar bed between the bricks and the wall surface area. The resulting thickness of mortar in back of the brick should be no less than 1/2 inch nor more than 1-1/4 inches.

Grouting and Finishing

Wait until mortar is "thumb print" dry and crumbly, then compact and smooth mortar joints with a jointing tool. (See Grouting and Finishing Joints)

Working with Masonry Adhesive (Interior Only)

On some interior projects, the use of masonry adhesive offers a fast and easy alternative to mortar. **Note: Do not wet brick when installing with adhesive.**

Table 3 - Interior Surfaces Preparation required when using Masonry Adhesive	
Recommended Surfaces:	Masonry adhesive may be applied over most clean and structurally sound interior surfaces such as plywood, drywall, concrete block and concrete.
Preparation:	Wall paper or other loose surface materials should be removed. Sanding may be required on very smooth surfaces to achieve a good bonding surface.
Alternatives:	As an alternative, drywall sheathing fastened to the wall studs over existing or removed surface materials will provide an inexpensive and effective application substrate. Drywall joints and nail holes will not require taping or filling unless required by building codes.
Non-recommended Surfaces:	Masonry adhesive is NOT RECOMMENDED for application over smooth textured tile, metal, wallpaper, some types of paint or surfaces that are continually damp.

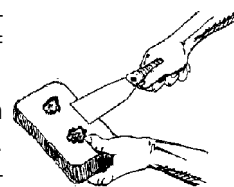
MASONRY ADHESIVE WITH GROUTED JOINT

Setting Brick With Masonry Adhesive

Place adhesive as per adhesive manufacturers instructions on the back of each brick.

Press and wiggle bricks into place on wall surface until they bottom out. Set bricks level and plumb, completing one row at a time.

Grout between bricks using a mortar bag.

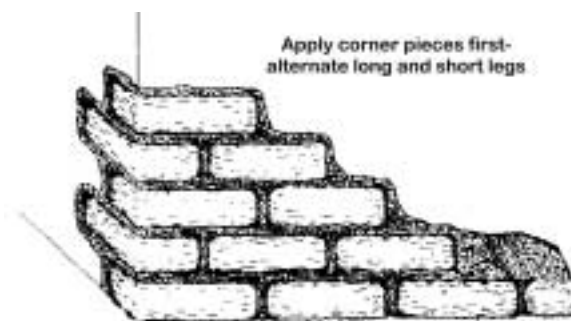


Applying Cultured Brick® Products

GENERAL INFORMATION FOR ALL METHODS OF INSTALLATION

A. To achieve a pleasing blend of color and texture, **use brick from several boxes at a time.**

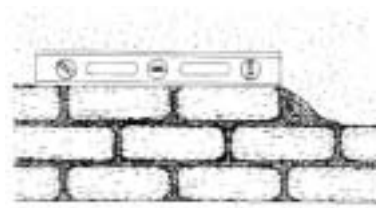
B. **If your application requires corner pieces, start each course by applying corner pieces first.** Notice that the corner pieces have a long and a short leg. Alternate these in opposite directions.



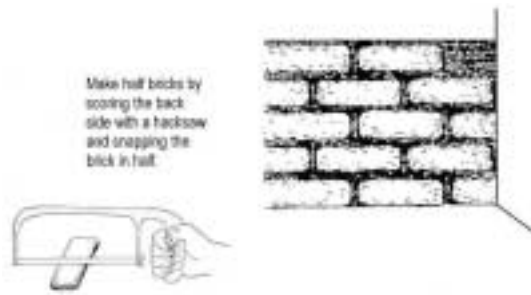
C. **Inside Corners** - When using a running bond, set full bricks to half bricks at inside corners alternating lengths in each course.

D. **Start at end of wall** and complete one horizontal course of brick. If a running bond is desired, alternate full and half length bricks in relation to the course below.

E. **Work across the surface area one row at a time.** Adjust spacing to eliminate unnecessary trimming. Keep courses level and plumb by using a carpenters level to check each course as it is laid.



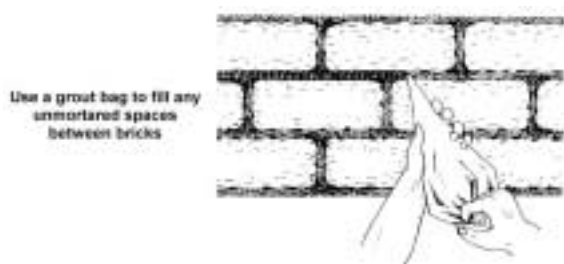
F. Cutting and trimming – Make half bricks by scoring the back side with a hacksaw and snap the brick in half.



Grouting and Finishing Joints

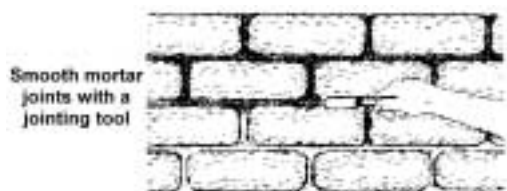
A. GROUTING JOINTS WITH MORTAR

If required, use a grout bag to fill any unmortared spaces between the bricks.



B. FINISHING JOINTS

When the mortar joints have become firm (thumb-print dry), they should be pointed up with a metal jointing tool. Rake out excess mortar, compact and seal edges around bricks. (Setting time will vary depending on wall surface and climatic conditions).



CORRECT



Mortar joints are uniform

Jointing is concave

INCORRECT



Mortar joints are not uniform

Incorrect tooling of joints - joints raked too deep

Cleaning Finished Job

At the end of the work day, or when mortar is sufficiently set up, the finished job should be broomed or brushed to remove loose mortar and to clean the face of the brick. A wet brush should never be used to treat the mortar joints as this may cause staining that will be difficult, or impossible, to remove. Do not use acid or acid base products to remove mortar.

Incorporate Good Building Practices

Make sure that the application of Cultured Brick® products and the structure it is being applied to incorporate good building practices. On exterior applications, improper installation or absence of flashing, cant strips, gutters and downspouts may result in undesirable diversion of water run-off onto finished surface areas. Masonry and other building products subjected to these conditions may develop staining, and when combined with severe freeze-thaw conditions, may eventually cause damage. The application of Cultured Brick® products under these conditions is not recommended.

RETAINING WALLS

All retaining walls must be waterproofed at the fill side. Wall construction should incorporate proper use of granular fill and provisions for good drainage. Cultured Stone Capstones or poured-in-place concrete cap must be used to provide adequate run-off protection. Caps should extend 1" to 2" beyond finished brick surface.

CHIMNEY CAP

All chimney chases must be capped with a one-piece cap that extends 1" to 2" beyond the finished brick surface to prevent water from entering into the wall system. Chimney or chase construction should incorporate proper flashing.

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