

Practical No.10: Assemble Brick thick wall in a Flemish Bond. (Minimum 3 Course) and prepare a report on it with sketches/photos.

I. Practical Significance

Bricks are the most commonly used material for building walls. The main reason for it is easily available and it is easy to handle. Bricks, as building material, are used in construction of load bearing structures walls and nonstructural members such as partitions walls etc. Brick masonry is a process of arranging bricks in courses. In courses bricks are longitudinal and transverse interlock to each other and form bond. Bonding in brick masonry is necessary to remove the continuity of the vertical joints in the successive course of the faces of a wall. For the construction of brick masonry Stretcher bond, Header bond, English bond, Flemish bond are used.

II. Industry/Employer Expected outcomes (POs)

This practical is expected to develop the following skills for the Industry identified.

1. Identify good quality of Bricks.
2. A student should be able to self-assemble brick masonry.
3. Construct brick wall in different bond.
4. To check verticality and horizontality of wall.

III. Course Level Learning Outcomes

Undertake the given type of building construction activity for the given component of building structure.

IV. Laboratory learning outcome(s)

Assemble one and half Brick thick wall in given bond.

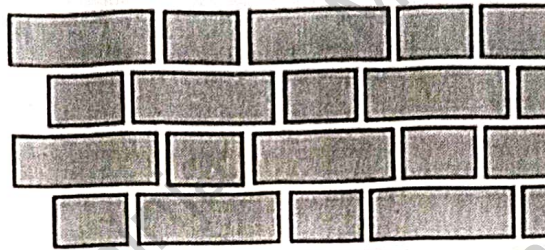
V. Relevant Affective Domain

1. Follow safety practices and precautions.
2. Maintain tools and equipment.
3. Maintain uniformity in work.

VI. Relevant Theoretical Background

Flemish Bond-

In Flemish bond, alternatively the header and stretcher are present in the same course. And the appearance remains the same in every course of the brick masonry. In this arrangement, the alternative courses start with a header and stretcher face. Queen closer is present after header quoin in the course which starts with header face for disturbing the vertical joints continuity in the successive courses. Bat is used in this type of bond when the thickness of the wall is equal.



Flemish Bond

XII. Result

I have the given type of building construction activity of the all types of building structures.

XIII. Interpretation of results

all the bricks are soaked in water so that they do not absorb water mortar.

XIV. Conclusions and Recommendations

construction of brick masonry stretcher bond, header bond, English bond.

XV. Practical Related Questions (Provide blank pages)

- 1) State the importance of bonding in brick masonry.
- 2) As a civil engineer what kind of precautions will you recommend during the construction of brick masonry?
- 3) Draw plan and section of Flemish bond.

Q. 1 → ?

Ans - Bonding in brick masonry plays a crucial role in ensuring the strength, durability and stability of the structure.

Q. 2 → ?

Ans - Selection of bricks use good quality, well burnt sized bricks. Bricks should be 37 soaking at brick bonding and joints alignment and levelly & sunny.

Q. 3 → ?

Ans - Header bond is brick laying pattern where each course consists of alternating Headers and stretchers.

It provides a better aesthetic appearance but is weaker than the English bond.

XVI. References/Suggestions for further Reading

Sr.no	Links	Description
1	https://youtu.be/IXDyBE4x7kE?si=FECrUtNSyZ_KyKB4	Flemish bond
2	https://www.youtube.com/watch?v=3XGt-p-hpdU	Flemish bond
3	https://www.youtube.com/watch?v=L-VGe2j53NU	Flemish bond