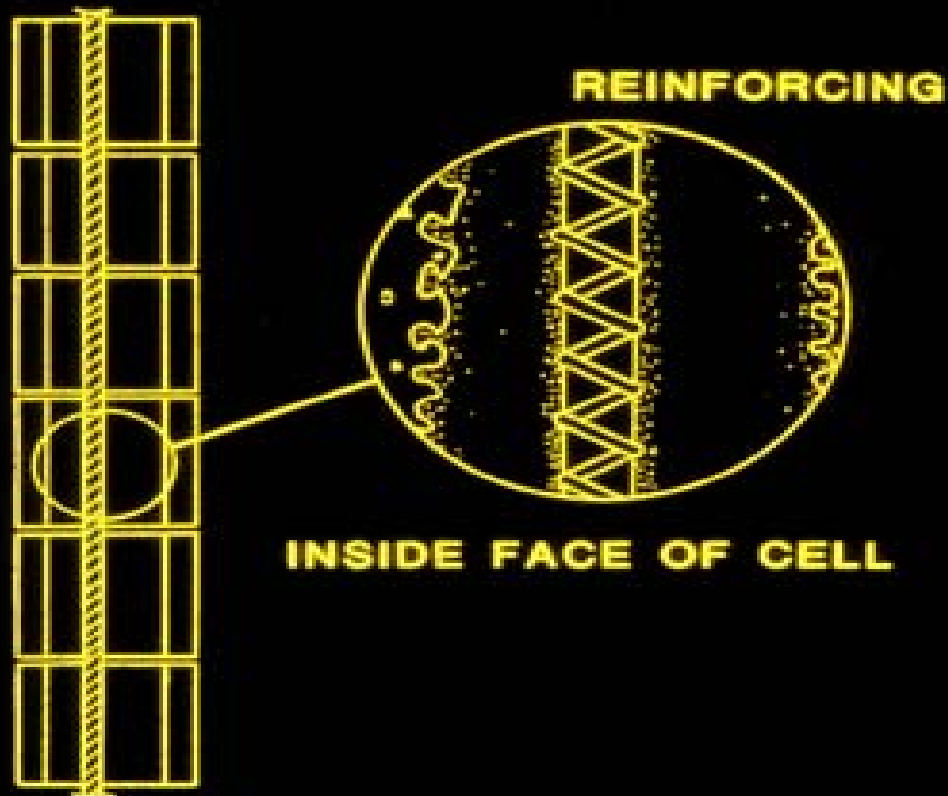


COMPOSITE ACTION OF STEEL & MASONRY



Bar must
be
embedded
in grout

pg. S-76 Sect 3.5 A.

3.5 A. *Placing time* — Place grout within 1½ hr from introducing water in the mixture and prior to initial set.

1. **Discard site-mixed grout that does not meet the specified slump without adding water after initial mixing.**
2. For ready-mixed grout:
 - a. **Addition of water is permitted at the time of discharge to adjust slump.**
 - b. **Discard ready-mixed grout that does not meet the specified slump without adding water, other than the water that was added at the time of discharge.**

The time limitation is waived as long as the ready-mixed grout meets the specified slump.

Grouting

pg. S-76 Sect 3.5 B.

3.5 B. *Confinement* — Confine grout to the areas indicated on the Project Drawings. Use material to confine grout that permits bond between masonry units and mortar.

Use grout stop --- screen – *no felt* paper

1.2 — Definitions (Continued)

V. *Grout lift* — An increment of grout height within a total grout pour. A grout pour consists of one or more grout lifts.

W. *Grout pour* — The total height of masonry to be grouted prior to erection of additional masonry. A grout pour consists of one or more grout lifts.

Grout Space Requirements

pg. S-77 Sect 3.5 C.Table 6

Table 6 - Grout space requirements

Grout type ¹	Maximum grout pour height, ft (m)	Minimum clear width of grout space,^{2,3} in. (mm)	Minimum clear grout space dimensions for grouting cells of hollow units, ^{3,4,5} in. x in. (mm x mm)
Fine	1 (0.30)	3/4 (19.1)	1 1/2 x 2 (38.1 x 50.8)
Fine	5.33 (1.63)	2 (50.8)	2 x 3 (50.8 x 76.2)
Fine	12.67 (3.86)	2 1/2 (63.5)	2 1/2 x 3 (63.5 x 76.2)
Fine	24 (7.32)	3 (76.2)	3 x 3 (76.2 x 76.2)
Coarse	1 (0.30)	1 1/2 (38.1)	1 1/2 x 3 (38.1 x 76.2)
Coarse	5.33 (1.63)	2 (50.8)	2 1/2 x 3 (63.5 x 76.2)
Coarse	12.67 (3.86)	2 1/2 (63.5)	3 x 3 (76.2 x 76.2)
Coarse	24 (7.32)	3 (76.2)	3 x 4 (76.2 x 102)

¹ Fine and coarse grouts are defined in ASTM C476.

² For grouting between masonry wythes.

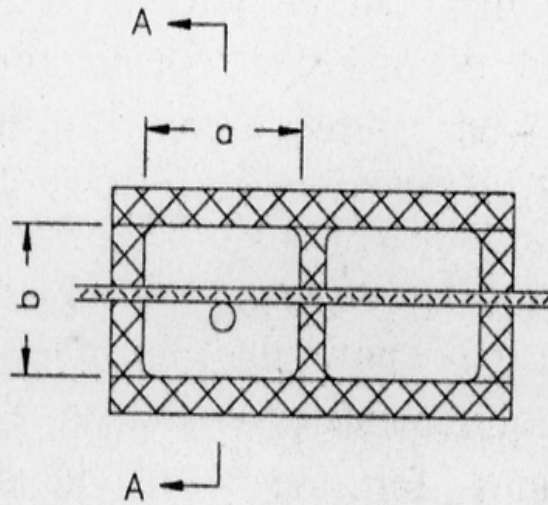
³ Minimum clear width of grout space and minimum clear grout space dimension are the net dimension of the space determined by subtracting masonry protrusions and the diameters of horizontal bars from the as-built cross-section of the grout space. Select the grout type and maximum grout pour height based on the minimum clear space.

⁴ Area of vertical reinforcement shall not exceed 6 percent of the area of the grout space.

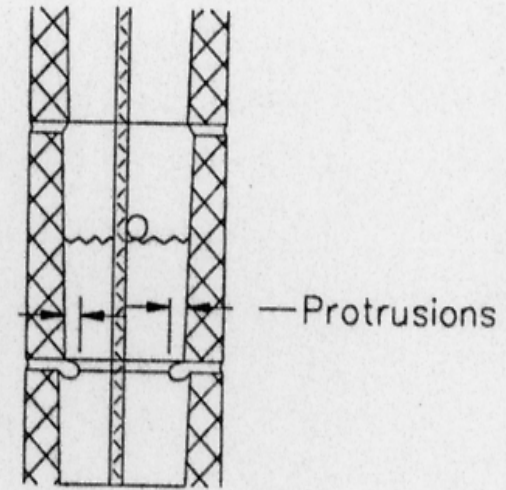
⁵ Minimum grout space dimension for AAC masonry units shall be 3 in. (76.2 mm) x 3 in. (76.2 mm) or a 3 in. (76.2 mm) diameter cell.

3.5 C. Grout pour height — Do not exceed the maximum grout pour height given in Table 6

Grout Space



- a > Minimum Grout Space Dimension
- b > Minimum Grout Space Dimension
Plus Horizontal Bar Diameter
Plus Horizontal Protrusions



Section A-A

Grout Pour & Grout Lift

pg. S-78 Sect 3.5 D.

3.5 D. *Grout lift height*

1. For grout conforming to Article 2.2 A: (C-476)
 - a. Where the following conditions are met, place grout in lifts not exceeding 12 ft 8 in. (3.86 m).
 - i. The masonry has cured for at least 4 hours.
 - ii. The grout slump is maintained between 10 and 11 in. (254 and 279 mm).
 - iii. No intermediate reinforced bond beams are placed between the top and the bottom of the pour height.

Consolidation & Reconsolidation

pg. S-78 Sect 3.5 E.

3.5 E. Consolidation

1. Consolidate grout at the time of placement.
 - a. Consolidate grout pours 12 in. (305 mm) or less in height by mechanical vibration or by puddling.
 - b. Consolidate pours exceeding 12 in. (305 mm) in height by mechanical vibration, and reconsolidate by mechanical vibration after initial water loss and settlement has occurred.
2. Consolidation or reconsolidation is not required for self-consolidating grout.

Florida Code Allows Puddling

pg. S-79 Sect 3.5 F.

3.5 F. Grout key — When grouting, form grout keys between grout pours. Form grout keys between grout lifts when the first lift is permitted to set prior to placement of the subsequent lift

1. Form a grout key by terminating the grout a minimum of 1½ in. (38.1 mm) below a mortar joint.
2. Do not form grout keys within beams.
3. At beams or lintels laid with closed bottom units, terminate the grout pour at the bottom of the beam or lintel without forming a grout key.

Distribution of load onto bond beam



Topping off:

**make a
final pass
with a
bucket full
of grout**