## What is the"BLOCK JOIST System"?

**"The BLOCK JOIST System is the sensible way to build concrete floors and roofs."**

There are three (3) distinct types of BLOCK JOIST Systems. All three are constructed in place.

The first two (2) types may be untopped. They use special blocks that form 1/2" wide by 3/4" deep grooves between the blocks to receive transverse reinforcing in the form of 9 ga. (W1.7) deformed wires. The first two (2) types are:

1) The Fire-Resistive BLOCK JOIST System. It uses reinforcing bars for the main reinforcing. It is designed as a simple-span reinforced concrete slab. It is listed as UL Design No. K907. (A 1 1/2" thick concrete topping may be added to raise the fire resistance from 2 hr. to 3 hr.)

2) The Non-Combustible BLOCK JOIST System. It has no reinforcing bars. It is designed as a simple-span composite concrete slab. 8x8x24 blocks make this system very economical. (A concrete topping may be added, if desired.)

3) The third system uses regular blocks of any size without the grooves and wires. A concrete topping must be added. It depends on a concrete topping with reinforcement in it for transverse reinforcement.

**7" deep steel BLOCK JOISTS and 8" blocks for spans up to 20'** are the major components for the vast majority of uses. A liquid 2.5:1 (masonry sand:Portland cement) grout, fills the spaces left between the blocks. The joist is easily handled. It is very stable and weighs less than 4.5 pounds per linear foot. A 20' joist can be comfortably handled by two workers, one if necessary. All components can be carried by hand to their final location.

Unlike most slow manual work, the BLOCK JOIST System can be constructed quickly, and therefore economically. The reasons for this speed are the high quality of the components and the simplicity of the work. When set on level bearings, the BLOCK JOISTS, made to SJI specs, are automatically level. When the ASTM C90 blocks are set on the joists, they provide an automatically level top surface. For the untopped systems, slight adjustment of the blocks by twisting a pinch bar aligns the grooves that receive the 9 ga. wires. When poured from only two or three locations along the joist, the grout is so liquid it visibly fills the trough containing the joist. The same grout, spread with a wide squeegie, fills the coarse surface texture of the blocks and leaves a flat, smooth top surface. When covered, the wet blocks cure the grout.

Gloves, a spirit level, a pinch bar, a wide squeegie, and a five gallon bucket are the only tools needed by the worker constructing the slab. The grout is easily mixed in a motorized mixer, or with a hoe in a mortar box. All of the work is performed on top of the slab being constructed. **No shoring, no forming, no welding, no crane, and no specialized equipment needed. "It is fun!" a builder said. "I love the BLOCK JOIST System," a masonry contractor said.**