

1. Set benchmark to establish finished slab elevation. See Product Data Sheet - Excavation and Skirting. If excavation level needs to be raised, refer to the drawing for instructions on the use of compacted fill.
NOTE: Final landscaping of ground surface at slab shall slope minimum 5% away from slab.
2. Place 3/4" to 3/8" **clear** stone (min. 4" thick) and ensure gravity drainage to daylight. Level to within 1/2" of desired elevation using a vibratory plate compactor.
3. Set up batter boards to 1½" to 3" (depending on building length) above finished slab elevation and lay out building perimeter. String line is NOT used to set elevation of components.
4. Locate and place plumbing risers and all other underslab services (ie. water, gas, electrical, etc.) **as well as extra sheet of insulation under boxes as per drawing if required.**
5. Re-level after plumbing installation to +/- ¼" of desired elevation and level to within ¼" in 10' under edge elements and between +¼" and -1" of desired elevation in slab centre for 8" slabs (between +0" and -1" for 5 or 6" slabs). Compaction is not required.
6. Begin edge element installation. Tie top of edge elements together using metal cap and check elevation of edge element using laser. **Lap metal cap joint at corners and joints and secure with sheet metal screws. Ensure that edge elements are within 1/2" of string lines in the horizontal direction.**
7. Tie bottom of edge elements together by simultaneously installing two courses of expanded polystyrene (EPS) insulation board, tied together and to elements with 6" nails to keep edge elements in place and square. Backfill gravel against outside of edge element as adjacent foam layers are secured. Pay special attention to corners and ensure that corners are well supported by gravel. Back-rake gravel under each sheet just before placement. Alternately, follow foam layout on drawing to ensure minimum waste, ie. using the cut-off piece from the previous row to start the next row of foam. For either method, ensure that vertical foam joints do not line up through 2 layers of foam.
8. Install any in-slab water lines in a groove in the EPS layer and foam the groove after line installation, or use conduits or sleeves above the EPS. Under no circumstances should ANY hot water lines be placed directly in the concrete without conduits or sleeves.
9. Cut out foam layer(s) and install each furnace box as per drawings and Product Data Sheets. Ensure that box lid is 0" to 1/8" above slab surface, especially if slab is low near the box.
10. Install bottom layer of wire mesh on chairs at perimeter and under bearing walls as per drawings. Use one chair per every 2' at mesh edges plus middle for 4' strips - refer to section. Secure the mesh sheet edges together with supplied rebar ties.
11. Mark pipe spacing (as show on drawing) on EPS using lumber crayons or line marking paint.
12. Install pipe as per drawings and pipe cut list. Each joint is secured with one screw. Support pipe with supplied foam pipe supports where not supported by mesh (1 per meter/3' of pipe). **Use of duct tape on joints is not necessary.**
13. Once pipe layout is complete, ensure all piping is in correct location with respect to markings and lock joints with a second screw.
14. Install pipe insulation as per drawings and fasten in place with supplied tie wraps. Insulate outlet pipes (except 100 mm (4") 3000 series heaters) within 300 mm (12") of the box with supplied low expansion foam. Place carefully (or cut off excess) to ensure min. 75 mm (3") concrete cover over foam near box.
15. Install top layer wire mesh and other rebar as per drawings. Tie top and bottom mesh layers together around pipe at perimeter with supplied **tie wraps** and tie interior mesh and rebar together with supplied **wire ties**.
16. Install skirting (if required) and backfill along perimeter. See product datasheet - Excavation and Skirting.
17. Call for inspection by LEGALETT personnel. Fill out and submit Inspection Report complete with photographs.
18. After approval of inspection report by LEGALETT personnel and receipt of authorization code to pour, place concrete using pencil vibrator. Install ICF dowels/anchor bolts and confirm their locations with framing contractor and ensure bolts are offset from studs and have a minimum of 3" embedment in concrete. Additional concrete will be required if EPS is low in the centre.
19. Steel trowel surface using power trowels.
20. Keep top of slab moist for three days to minimize shrinkage cracking.
21. A LEGALETT construction heater can be used the day after the concrete is placed for cold weather pours only. In all cases, the construction heater **MUST** be run for a minimum of 2 weeks after the building is closed in (and insulated if during the heating season) and before permanent heating insert(s) and floor coverings are installed. To obtain effective drying, the entire slab should be heated to 27°- 30°C (80°-85°F). Overall reduction in moisture content of the slab is important to prepare the surface for floor covering adhesives and prevent moisture damage to the permanent insert(s). For further information contact LEGALETT and / or refer to the following datasheets: i) Construction Heater and Floor Finishes and ii) Slab Drying and Moisture Test.
22. Request flushing adaptor (water units only), moisture test kit and thermostats.
23. Complete Heater Installation Preparation Verification Form and submit to LEGALETT for approval. Upon approval and receipt of authorization code to install heaters, permanent heating insert can be installed.