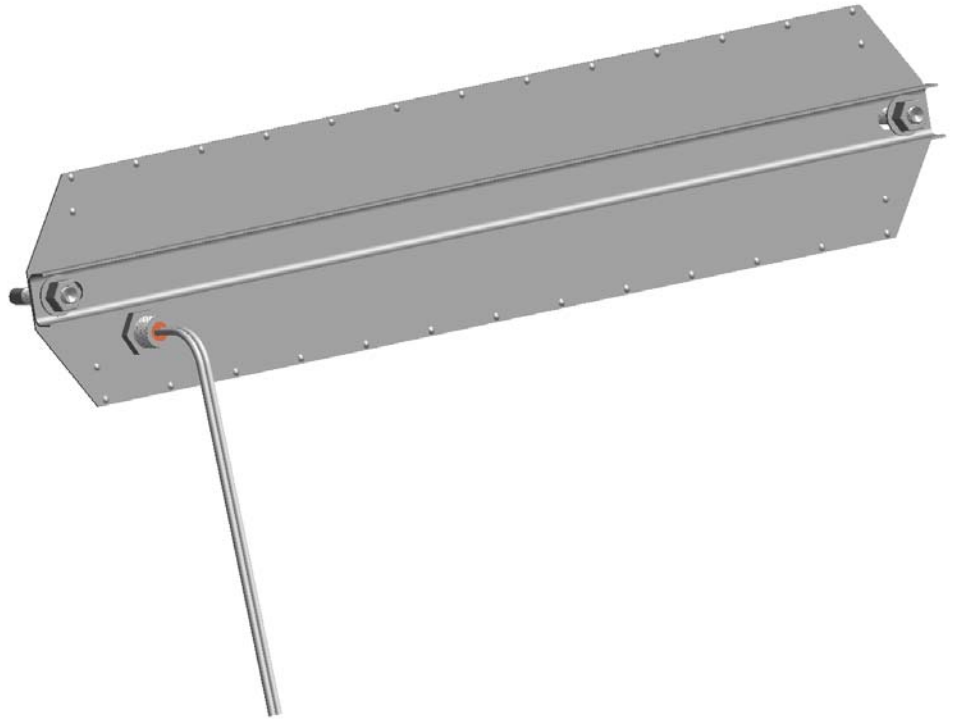


# HT Heating Module

## INSTALLATION PROCEDURES



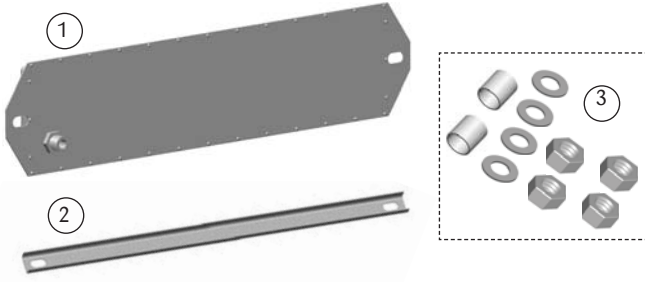
**The Heat Tracing Specialists®**

# HT Heating Module

## Receiving, Storing and Handling . . .

1. Inspect materials for damage incurred during shipping.
2. Report damages to the carrier for settlement.
3. Identify parts against the packing list to ensure the proper type and quantity has been received.
4. Store in a dry indoor location.

## Contents . . .



Item	Quantity	Description
1	1	Heating Module
2	1	Reinforcing Channel
3	1	Spacer Kit

## Mounting Studs:

(Order Separately for each Heating Module to be fabricated.)



Item	Quantity	Description
4	2	1/2" Stud with Ferrule

## Standard Mounting Equipment . . .

Each HT Heating Module is shipped with a reinforcing channel, spacers, 1/2" nuts and 1/2" washers. Mounting studs and installation templates are supplied separately to facilitate marking heater and mounting stud locations prior to installation of heaters.

## Available HT Module Sizes<sup>1</sup> . . .

Catalog Number Base Module	Module Dimensions in (cm)	Stud Spacing in (cm)
612	6 x 16.1 (15 x 40)	14.1 (36)
624	6 x 27.6 (15 x 70)	25.6 (65)
636	6 x 39.1 (15 x 99)	37.1 (94)
648	6 x 50.6 (15 x 129)	48.6 (123)
212	12 x 16.1 (30 x 40)	14.1 (36)
224	12 x 27.6 (30 x 70)	25.6 (65)
236	12 x 39.1 (30 x 99)	37.1 (94)
248	12 x 50.6 (30 x 129)	48.6 (123)

# INSTALLATION PROCEDURES

## Warnings . . .

- Multiple modules can be energized from the same circuit breaker based on operating voltage and current draw. The current draw and/or breaker sizing should be based on the National Electrical Code, Canadian Electrical Code or any other applicable code.
- To minimize the potential for arcing and ground-fault protection. The National Electrical Code (NEC) and Canadian Electrical Code (CEC) require ground-fault protection of equipment for each branch circuit supplying electric heat tracing.
- Component approvals and performance ratings are based on the use of Thermon specified parts only.
- De-energize all power sources before connecting heaters.
- Individuals installing these products are responsible for complying with all applicable safety and health guidelines. Proper Personal Protective Equipment (PPE) should be utilized during installation. Contact Thermon if you have any additional questions.

## Tools Required . . .



Stud Welder



19mm (0.75") Wrench

## Certifications/Approvals . . .

**Factory Mutual Research**  
 Ordinary Locations  
 Hazardous (Classified) Locations  
 Class II, Division 2, Groups F & G



**Canadian Standards Association**  
 Ordinary Locations  
 Hazardous (Classified) Locations  
 Class II, Division 2, Groups E, F, & G

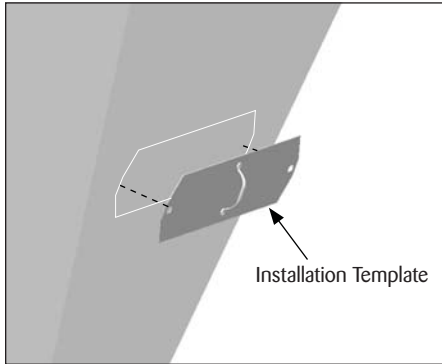


## Notes:

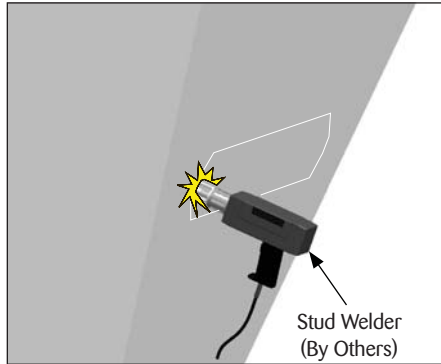
1. Catalog numbers shown are partial numbers. Delivered product will have prefix and suffix designations to identify complete catalog number. Contact Thermon for design assistance.

# HT Heating Module

## INSTALLATION PROCEDURES



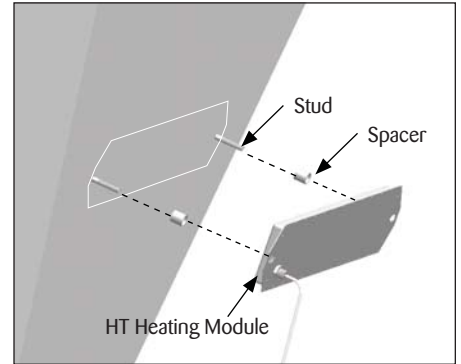
1. Have template and heating system layout drawing available. Select the correct sized template. Position installation template on hopper wall per layout drawing and mark stud locations. If two or more modules are to be placed in one area, care should be taken to insure proper fit of all modules. By marking the outline of each template with chalk or crayon on the hopper wall, clearances can be verified prior to welding of studs.



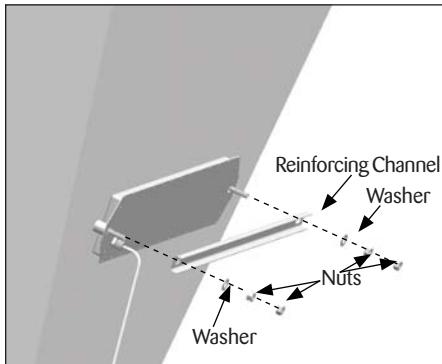
2. Weld studs in place per the manufacturer's recommendations.
 

Notes:

  - Sandblasting of hopper surface or grinding of welding beads or weld splatter is NOT required for proper installation of the HT Heating Modules. However, to provide maximum heat transfer efficiency, it is recommended to install the HT Heating Module on a fairly clean, smooth surface.

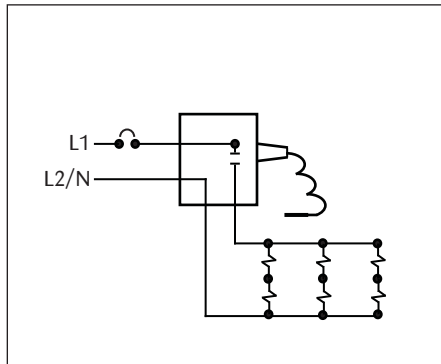


3. Place spacer on each stud and then place HT Heating Module over studs.



4. Assemble mounting components (supplied with each module) in the following order:
  - Place reinforcing channel over module and studs.
  - Place washer on each stud.
  - Secure with one nut per stud and torque down with 20-30 foot pounds.
  - Add second nut to each stud and tighten.

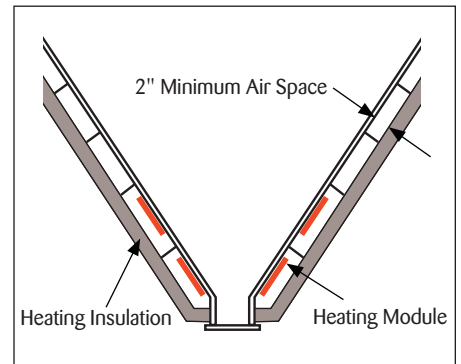
Carefully route lead wires to junction box and connect to the terminal strip according to the layout drawing. See typical wiring schematic.



Typical Wiring Schematic for Heating Modules

**IMPORTANT:**

See Thermon project specific heater layout and wiring drawings for actual heater wiring.



Hopper Insulation Design

**IMPORTANT:**

The design of the hopper heating system is based on the transfer of heat into the hoppers via convection and conduction in the air spaces between each stiffener to provide an "oven" effect to ensure even distribution of heat. It is important that the insulation be properly sealed at each stiffener level to prevent drafts or chimney effects. Allow 2 inch minimum air space for heaters. (See project installation manual for additional details).

**Notes:**

1. Route lead wires to junction box(es) according to project specific heater layout drawing. CAUTION: Do not rotate the feed through fitting which supports the heater wiring.
2. During heater installation, heaters should not be left exposed to rain, snow, moisture, etc..
3. Electrical insulation resistance test (megger) and resistance (Ohms) should be done on each heater per project installation manual.



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