

Product Overview | 4445 & 4445N Tempest®

GENERAL OPERATION and CONTROL

- **195,000 to 1,500,000 Btu/h HHV.**
- **Combustion Air:** 24 osig maximum air pressure (20 osig maximum on -4-B, -5, and -6 burners)
- **Gas:** Natural gas
- **Flame Supervision:** Flame rod or UV detectors can be used but the performance varies depending on the number of factors.

With UV detectors the flame signal gets weaker as the length of the tile increases, and as the excess air rate is increased. With the long and extra long tiles the UV will not pick up a flame signal reliable with as high of an excess air rate as the short and medium length tiles.

With a flame rod, the length of the tile does not affect the flame signal but a flame rod will not reliably sense high excess air flames as well as a UV on a short or medium tile. With long and extra long tiles, a flame rod will pick up flames over a wider excess air range than a UV scanner.

- **Ignition:** Direct spark (no pilot) w/6000 V (minimum) transformers. A halfwave transformer will prevent UV sensing of spark during trial for ignition.

- **Control:** Applicable with all control systems -- StepFire™, on-ratio, and thermal turndown. **NOTE:** For best results, the limiting orifice valve must be mounted as close as possible to the gas connection.
- **Relight:** Tempest® burners require spark re-ignition since high velocity burners will not relight off a hot tile or furnace.

TILE CHOICES

Tile shapes and material that suit your specific needs.

Materials

"A" Tile — Alumina/Mullite tile for most applications up to 2900°F.

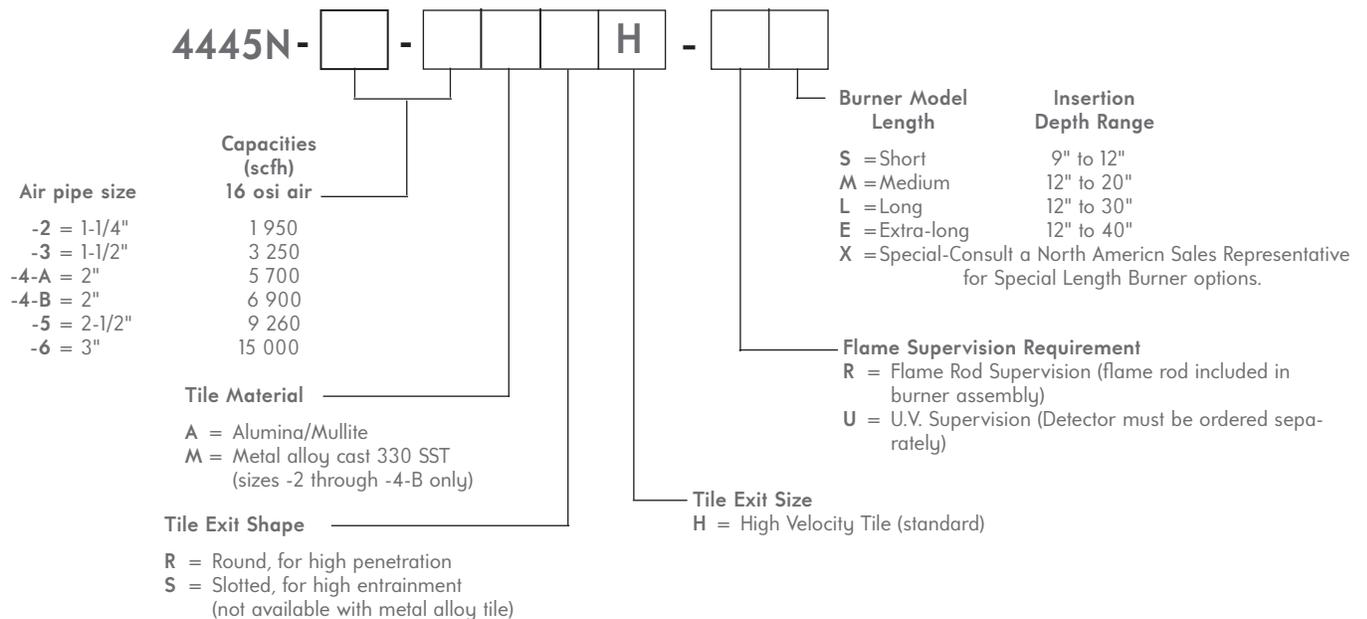
"M" Tile — Durable cast metal alloy tile for general applications up to 2000°F (sizes -2 through -4-B only).

Exit Shapes

"R" Round — for high penetration and maximum "drive".

"S" Slotted — for narrow lane firing and better temperature uniformity (for "A"-alumina tile only).

ORDERING INFORMATION



[Note: Standard slot orientation is horizontal, with the air connection at 6 o'clock or 12 o'clock. Contact product manager if vertical slot orientation is desired.]

Examples:

4445N-4-BASH-RL = -4-B Capacity 4445 Burner with an Alumina/Mullite Slotted High Velocity Tile, with a Flame Rod and an Insertion Depth Range of 12" to 30".

4445N-2-MRH-UM = -2 Capacity 4445 Burner with a Metal Alloy Round High Velocity Tile, with "U" Flame Supervision Requirement and an Insertion Depth Range of 12" to 20".

4445N-5-ARH-RL = -5 Capacity 4445 Burner with an Alumina/Mullite Round High Velocity Tile, with a Flame Rod and an Insertion Depth Range of 12" to 30".