

# **Technical Bulletin 155 - Z-FLEX Z-DENS Venting for Rinnai Boilers**

Purpose: To announce the approval of Z-DENS Polypropylene Venting by Z-FLEX for Rinnai Condensing Boilers.

## **Approved Vent Manufacturer**

| Manufacturer | Listed and Tested Vent Products     | Telephone    | Fax          | Contact        |
|--------------|-------------------------------------|--------------|--------------|----------------|
| Z-FLEX       | Z-DENS Polypropylene Venting System | 603-669-5136 | 603-669-0309 | www.z-flex.com |

## Approved 2 in. (60 mm) Z-DENS Polypropylene Vent Products (Item Numbers)

| Pipe Lengths                                                                         | Elbows                                          | 2/4 Concentric<br>Termination | 2/4 Concentric<br>Adapter | Locking Clamp,<br>Support Bracket |
|--------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------|---------------------------|-----------------------------------|
| 2ZDP212, 2ZDP212UV,<br>2ZDP224, 2ZDP224UV,<br>2ZDP236, 2ZDP236UV,<br>2ZDP272, 2ZDAP2 | 2ZDE245,<br>2ZDE245UV,<br>2ZDE287,<br>2ZDE287UV | 2ZDCTH24,<br>2ZDCTV24         | 2ZDACLC2224               | 2ZDLC2, 2ZDFB2                    |

### Approved 3 in. (80 mm) Z-DENS Polypropylene Vent Products (Item Numbers)

| Pipe Lengths                                                                         | Elbows                                          | 3/5 Concentric<br>Termination | 3/5 Concentric<br>Adapter | Locking Clamp,<br>Support Bracket |
|--------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------|---------------------------|-----------------------------------|
| 2ZDP312, 2ZDP312UV,<br>2ZDP324, 2ZDP324UV,<br>2ZDP336, 2ZDP336UV,<br>2ZDP372, 2ZDAP3 | 2ZDE345,<br>2ZDE345UV,<br>2ZDE387,<br>2ZDE387UV | 2ZDCTH35,<br>2ZDCTV35         | 2ZDACLC3335               | 2ZDLC3, 2ZDFB3                    |

The installation of the above components must conform to the Rinnai Installation and Operation Manual that is shipped with the unit, local codes, or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA 54.

Turn page for maximum equivalent vent lengths.

### **Maximum Equivalent Vent Lengths**

| Q-Series Boilers |                                 |                                 |  |
|------------------|---------------------------------|---------------------------------|--|
| Model Number     | Maximum Equivalent Length 2 in. | Maximum Equivalent Length 3 in. |  |
| Q85S             |                                 |                                 |  |
| Q130S            | 40 ft /42 2 ··· \               | 100 ft (20 f)                   |  |
| QP85             | 40 ft (12.2 m)                  | 100 ft (30.5 m)                 |  |
| QP130            |                                 |                                 |  |

| E-Series Boilers |                                 |                                 |  |
|------------------|---------------------------------|---------------------------------|--|
| Model Number     | Maximum Equivalent Length 2 in. | Maximum Equivalent Length 3 in. |  |
| E50C/E50CR       |                                 |                                 |  |
| E75C/E75CR       |                                 |                                 |  |
| E110C/E110CR     | 40 ft /12 2 ···· \              | 100 ft /20 f)                   |  |
| E60SR            | 40 ft (12.2 m)                  | 100 ft (30.5 m)                 |  |
| E85SR            |                                 |                                 |  |
| E110SR           |                                 |                                 |  |

| M-Series Boilers |                                 |                                 |  |
|------------------|---------------------------------|---------------------------------|--|
| Model Number     | Maximum Equivalent Length 2 in. | Maximum Equivalent Length 3 in. |  |
| M060C            | 60 ft (18 m)                    | 150 ft (46 m)                   |  |
| M090C            |                                 |                                 |  |
| M120C            | 30 ft (9 m)                     | 140 ft (43 m)                   |  |
| M160C            |                                 |                                 |  |
| M060S            | 60 ft (10 m)                    | 150 ft (46 m)                   |  |
| M090S            | 60 ft (18 m)                    | 150 ft (46 m)                   |  |
| M120S            | 20 ft (0 m)                     | 140 ft (42 m)                   |  |
| M160S            | 30 ft (9 m)                     | 140 ft (43 m)                   |  |

- Each termination is equivalent to the length of pipe of the termination.
- Each 90-degree elbow counts as six equivalent feet.
- The installer must determine the number of 90-degree elbows in the vent system (two 45-degree elbows count as one 90-degree elbow).