Includes installation guidelines for installing the Nuheat Floor Heating System under tile, stone and laminate/engineered wood surfaces.

For French and Spanish installation instructions, visit www.nuheat.com
Important Installation Guidelines

First time installers should contact Nuheat's First Time Installer Line for Nuheat Mat at 1 (800) 778-WARM(9276)

- THE INSTALLATION OF THIS HEATING PRODUCT SHALL BE IN ACCORDANCE WITH THE MANUFACTURER’S INSTRUCTIONS AND IN ACCORDANCE WITH THE CANADIAN ELECTRICAL CODE PART 1 OR THE NATIONAL ELECTRICAL CODE (US) WHICHEVER IS APPLICABLE.

- THIS EQUIPMENT SHALL BE INSTALLED ONLY BY QUALIFIED PERSONNEL WHO ARE FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE APPARATUS AND RISKS INVOLVED.

- CAUTION SHOULD BE TAKEN TO GUARD AGAINST RISK OF ELECTRIC SHOCK, FIRE AND BODILY INJURY DURING THE INSTALLATION OF THIS EQUIPMENT.

- Nuheat Mat should be connected to a dedicated electrical circuit.

- It is mandatory to install a Class “A” GFCI or GFCI circuit breaker with each Nuheat Mat Installation.

  NOTE: All Nuheat thermostats come equipped with a built-in Class “A” GFCI.

- DO NOT USE sharp tools or power tools to clean grout lines. Cleaning grout lines with sharp tools or power tools may damage the Nuheat Mat System and WILL VOID THE NUHEAT WARRANTY.

- Indicate on the electrical panel which circuit is used for the electric floor heating system.

- Subfloor must be prepared in accordance to ANSI specifications.

- Nuheat Mat cannot be overlapped, crossed, cut, shortened or modified.

- The ambient air temperature must be above 0°C or 32°F when the Nuheat Mat Floor Heating System is installed.
Contents

Fast Facts 1

Nuheat Mat Measuring Instructions 2

Getting Started 4

Installation Guidelines
Testing Nuheat

Nuheat Mat Installation 6

Securing Nuheat Mat to the Subfloor
Install Flooring:
Tile and Stone
Floating Laminate and Engineered Wood
Glue Down Laminate and Engineered Wood
Connecting the Electrical & Final Steps

Nuheat Controls 14

Nuheat Accessories 17

Troubleshooting 18

Replacing a Broken Tile
THE NUHEAT REGISTERED INSTALLER PROGRAM
A Nuheat Floor Heating System promises a homeowner soothing comfort in any room. Delivering that comfort requires proper Nuheat installation from trained and experienced installers and electricians.

Our goal is to deliver a simple and hassle-free experience when purchasing and installing our floor heating system. Part of our superior service is our Nuheat Registered Installer Program. The Nuheat Registered Installer Program is a network of Nuheat trained individuals and companies across North America.

REFERRAL BUSINESS
Nuheat refers thousands of homeowners to only those on our master list of registered installers. Our installers are committed to quality installations in the residential construction industry. Nuheat referrals will only go to installers who are registered and who are customers of a Nuheat Authorized Distributor. Our website, www.nuheat.com, allows homeowners to find an installer in their local area.

PUBLICITY AND PROMOTIONS
Registered installers have use of the Nuheat logo on approved promotional materials and are eligible for seasonal promotions.
Nuheat Mat
Fast Facts

- Pre-built like an electric blanket, Nuheat Mat is an electric floor heating system that is only 1/8" thick and easy to install.

- Nuheat Mat draws 12 watts per square foot and produces 41 BTUs per square foot, providing even heat with no cold spots.

- Nuheat Mat typically reaches a temperature of 80°F - 90°F (27°C - 32°C).

- Nuheat Mats are available in 120V and 240V and in over 60 standard sizes (squares and rectangles).

- Nuheat also offers custom-sized mats for rooms with curves and angles.

- Floor temperature is controlled by a variety of programmable and non-programmable thermostat options (refer to Controls section).

- Nuheat carries a 25-year warranty.

- Nuheat must be installed on a dedicated 20 amp circuit.

- The maximum load the thermostat can handle is 15 amps; this translates to 150 square feet at 120V and 300 square feet at 240V.

- Subfloor must be prepared according to ANSI standards.

- Nuheat Mats are not warranted in exterior applications.
Nuheat Mat  
Measuring Instructions

**IMPORTANT:** Measure tight to the perimeter for all your measurements. DO NOT make any allowances in your measurements.

An interactive online measuring tutorial is available at www.nuheat.com

For assistance with measuring, you can speak to a Designer directly by calling our Design Direct line at 1 (800) 778-9276. Design Direct hours are Monday-Friday 5am-5pm PST.

1. Pick a corner of the room and use that as the starting point for your measurements. Remember that you must return to this starting point at the end of your measurements.

2. Measure and draw the walls of the room on grid paper and record the measurements.

   a. Each time the wall changes directions, record the measurement before continuing to measure the next wall. Measure around fixtures such as shower bases and tubs under which Nuheat would not be installed.

   b. Be sure to include any small dimensions such as framing walls for entryways into smaller rooms.

   c. Measure/Draw the room on the grid paper and record the measurements until you reach the starting point identified in Step 1.
3. Draw the location of all cabinets and vanities, including dimensions.

a. For cabinets and vanities, make sure to take the measurement right up to the toe-kick.

4. Measure and draw the location of floor features such as:
   a. Toilet drains
      i. measure from the walls to the center of the toilet drain.
   b. Vents
   c. Other fixed floor features

5. Indicate thermostat location and voltage if known.
Getting Started
Installation Guidelines

BEFORE YOU START
A successful Nuheat application requires the following tools:

- Acrylic or latex modified thinset
- Duct tape
- 1/4" square notch trowel
- Small plastic bristled brush
- Margin trowel
- Grouting float
- Digital ohm/multimeter
- Sponge
- Bucket of water

AVOID THE FOLLOWING ACTIVITIES THAT MAY DAMAGE NUHEAT:

- Connecting the mat to power when folded
- Stapling
- Nailing
- Folding, bending or overlapping mats
- Do not use grout scrapers or utility knives to clean grout lines. Cleaning grout lines with sharp tools may damage the mat. Using these tools will void the Nuheat warranty.

TIP: Clean grout lines with a sponge as you go.

NOTE: The MatSense Pro electrical fault indicator should be attached to the mat at all times during installation. It DOES NOT replace the resistance testing. For information about the MatSense Pro, refer to page 17.

DO NOT CONNECT THE MAT TO POWER DURING TESTING.
INSULATION AND RESISTANCE TEST MUST BE PERFORMED BEFORE, DURING, AND AFTER THE INSTALLATION OF THE NUHEAT MATS TO VALIDATE THE WARRANTY.

Getting Started
Testing Nuheat

INSULATION TEST
To ensure that the copper conductors are fully insulated:
- Acquire a digital ohm/multimeter with alligator clip attachments or equivalent testing device. Place one probe on the ground outer metallic braid and the other probe on the conductor wire inside the white lead.
- The mat(s) should be laid out flat.
- Do not hold probes or wires in your hands.
- Confirm that the reading is OL or infinity.
- Repeat this step to check the reading between the metallic braid and the conductor wire inside the black lead.

RESISTANCE TEST
To ensure continuity in your heating mat:
- Set the ohm meter to the appropriate setting. For 120V mats, place one of the probes on the conductor wire in the white lead and the other probe on the conductor wire in the black lead. For 240V mats, the leads are red and black.
- For testing mats with ohm readings over 200 the ohm meter will need to be set higher than 200Ω (i.e. 2000Ω) in order to get an accurate reading.
- Confirm that your ohm reading is within +10% or -5% of the factory reading listed on the mat tag. Record reading in the Mat Resistance Log, provided in the installation instructions included with each Nuheat Mat.
- After testing mats connect a MatSense Pro to the lead wires to simultaneously monitor continuous separation of conductor & braid (ground) with unbroken insulation and continuous continuity between conductors.
- Test sensor probe. Put resistance range to 20KΩ. Probe wires should read between 8K - 12K ohms.
Nuheat Mat Installation
Securing Nuheat Mat to the Subfloor

SUBFLOOR MUST BE PREPARED IN ACCORDANCE TO ANSI SPECIFICATIONS.

STEP 1
Ensure the subfloor is clean and free of debris. Dry fit the mats to ensure it fits the contours of the room and provides proper coverage. There is no “up” or “down” side to Nuheat Standard Mats. You can flip the mat in any direction to place the lead wires as close as possible to the junction box. Choose the side that is more convenient when running the cold lead to the thermostat location.

Mark the locations of the connecting cable and connection patch on the subfloor. Lay out the path of the cold lead to the junction box around the perimeter of the mat. If leads do not reach the Nuheat thermostat or designated junction box, please contact Nuheat Customer Care at 1 (800) 778-9276.

NOTE: Conduct insulation & resistance tests.

NOTE: Connect the MatSense Pro to the lead wires to monitor hot, neutral and ground wires during your Nuheat Mat Installation.
Nuheat Mat Installation
Securing Nuheat Mat to the Subfloor

STEP 2
Prepare the acrylic/latex modified thinset according to manufacturer’s instructions.

Using at least a 1/4” x 1/4” square notch trowel, spread a coat of fresh acrylic/latex modified thinset over the area to be covered by Nuheat. If laying Nuheat in a large area make sure to work on one manageable section at a time.

Place the mat onto the fresh thinset. Press entire surface firmly with a rubber grout or similar tool. Create 100% contact between the heating mat, the thinset and the subfloor.

TIP: When using multiple mats, ensure that the outside wires of adjacent mats are within 2” of one another to keep the wire spacing and heat distribution consistent across the floor.

NOTE: Conduct insulation and resistance tests.
Nuheat Mat Installation

Install Flooring:

TILE AND STONE

STEP 1
Install Nuheat Mat as per the instructions on page 6 and 7.

If installing a floor-sensing thermostat with GFCI, ensure that the sensor is installed at this point. Install the probe on top of the mat a minimum of 12” in from the edge of the heated area. Tape the sensor probe in place between two heating wires.

STEP 2
Apply a coat of thinset according to the thickness required for your tile or stone and install flooring.

TIP: Clean excess thinset from grout lines with a sponge or small plastic brush and water as tile is being laid.

NOTE: Conduct insulation and resistance tests.

STEP 3
Apply grout. The use of grout scrapers or utility knives to clean grout joints may damage the mat and will void the Nuheat warranty.

Before activating the Nuheat System, allow the thinset and grout to cure according to the manufacturer's guidelines.
Nuheat Mat Installation

Install Flooring:

FLOATING LAMINATE AND ENGINEERED WOOD

STEP 1
Install Nuheat Mat as per the instructions on page 6 and 7.

Using the flat side of a trowel, apply a minimum 1/4” thick coat of thinset over the mat and supply leads. Ensure the thinset is level and smooth.

Allow thinset to cure as per manufacturer’s guidelines.

NOTE: Conduct insulation and resistance tests.
STEP 2
Install vapor barrier, if applicable, and underlay as per manufacturer’s instructions.

STEP 3
Install the sensor probe on top of the underlay, a minimum of 12” in from the edge of the heated area. Tape the sensor probe in place and run the sensor wire up to the thermostat location. The thermostat sensor probe should be placed above the underlay to avoid compromising the performance of the Nuheat System. Install laminate/engineered wood as per manufacturer’s instructions. After installation, gradually increase the Nuheat Mat temperature over a period 72 hours to the maximum temperature or 82°F or 28°C.
Nuheat Mat Installation
Install Flooring:
GLUE DOWN LAMINATE AND ENGINEERED WOOD

STEP 1
Install Nuheat Mat as per the instructions on page 6 and 7.

Using the flat side of a trowel, apply a minimum 1/4” thick coat of thinset over the mat and supply leads. Ensure the thinset is level and smooth.

Allow thinset to cure as per manufacturer’s guidelines.

STEP 2
Install the sensor probe on top of the thinset layer, a minimum of 12” in from the edge of the heated area.

STEP 3
Using a notched trowel, apply a layer of adhesive following adhesive manufacturer’s instructions.

Install laminate/engineered wood as per the manufacturer’s instructions.

TIP: To ensure adequate bonding, apply weights to hold the floor on top of the sensor probe.
Nuheat Mat Installation
Connecting the Electrical & Final Steps

**ELECTRICAL CONNECTIONS MUST BE MADE BY A CERTIFIED ELECTRICIAN TO VALIDATE WARRANTY.**

**ELECTRICAL INSTALLATION**
All wiring must follow specifications set out in Part 1 of the Canadian Electrical Code, the US National Electrical Code and local electrical inspection regulations. All Nuheat Mats must be connected to the electrical service through a Ground Fault Circuit Interrupter (GFCI) which is built into all Nuheat controls.

**STEP 1**
Determine the number of circuits you require based on the amperage draw of the heating system (the amperage is located on the silver UL tag attached to the leads.) For special wiring instructions or diagrams please call Nuheat Customer Care at 1 (800) 778-9276.

**STEP 2**
Install the circuit(s) at the electrical panel.

**NOTE:** Conduct insulation & resistance tests.

**STEP 3**
Attach the connecting wires to the outlet box using CSA Certified/UL Listed cable fittings. Make the electrical connection only after the flooring is complete. Resistance test the mat(s) before setting tile.

**TIP:** When connecting multiple Nuheat Mats, it may be easier to connect the mat at a floor level junction box rather than directly to the thermostat.
STEP 3 (CONTINUED)
Final Connections (using a Nuheat Floor-Sensing Thermostat)
• Connect the black line wire to the black control wire (line side)
• Join the white line wire to the white control wire (line side)
• Fasten the black mat lead wire to the black control wire (load side)
• Connect the white mat lead wire to the white control wire (load side)

STEP 4
• Connect the braided ground wire to the grounded copper conductor (wire nut or ground screw)
• Fasten the thermostat probe wires to the sensor terminals at the back of the floor-sensing thermostat
• Place the wires and control into the junction box

HELPFUL TIPS
• There is no “up” or “down” side to Nuheat Standard Mats. You can flip the mat in any direction to place the lead wires as close as possible to the thermostat or junction box.
• To test the bond between the mat and the subfloor, peel a portion of the mat back from the thinset you have adhered to the subfloor. At least 80% of the mat pulled from the floor should be covered with thinset.
• It is mandatory to install a Class A GFCI or GFCI circuit breaker when feeding mats through a relay with each Nuheat Mat installation. If using a Nuheat control, no additional GFCI is required.
• Discarding mat label voids the warranty.

TROUBLESHOOTING
Should you have any questions or difficulties installing or controlling your Nuheat Mat, please contact Nuheat directly at 1 (800) 778-9276.

AFTER THE NUHEAT MAT INSTALLATION
Allow thinset or adhesive to cure according to manufacturer specifications before activating the Nuheat Mat System.
Nuheat Controls
Programmable Floor-Sensing Thermostats
Harmony

Harmony Thermostat — Flush-mounted, designer inspired
The Harmony thermostat is exclusive to Nuheat. Blending style and function, the Harmony thermostat is the only flush mounted, designer inspired thermostat in the floor heating category. A seamless fit behind any double-gang face plate allows homeowners the ability to integrate both style and warmth into their room decor. It may also be mounted beside your other controls if you choose to use a face plate larger than two-gang.

Harmony Benefits:
• Exclusively designed for Nuheat
• Programmable 7-day settings
• Available in 120V & 240V
• For tile, stone and laminate/engineered wood floors
• Backlit screen
• On/off switch
• Built-in Class A GFCI
• Manufacturer’s limited three (3) year warranty

120 Volt Specifications
Model: HMY 110
Supply: 120 VAC
Load: 15 A max. (resistive load)
Power: 1800 W max. @ 120 VAC
GFCI: Class A (5 mA TRIP LEVEL)
Approvals: CSA / C, US
Display range: 32 to 140 ° F (0 to 60 ° C)
Setting range: 40 to 104 ° F (5 to 40 ° C)
Econo default setting: 64 ° F (18 ° C)
Storage: -4 to 120 ° F (-20 to 50 ° C)

240 Volt Specifications
Model: HMY 220
Supply: 240 VAC
Load: 15 A max. (resistive load)
Power: 3600 W max. @ 240 VAC
GFCI: Class A (5 mA TRIP LEVEL)
Approvals: CSA / C, US
Display range: 32 to 140 ° F (0 to 60 ° C)
Setting range: 40 to 82 ° F (5 to 40 ° C)
Econo default setting: 64 ° F (18 ° C)
Storage: -4 to 120 ° F (-20 to 50 ° C)
**Solo Benefits:**
- Dual voltage (120V & 240V)
- Programmable 7-day settings
- Full menu screen
- Energy efficient
- Backlit screen
- For tile, stone and laminate/engineered wood floors
- Built-in Class A GFCI
- Manufacturer’s limited three (3) year warranty

**120 & 240 Volt Specifications**

- **Model:** SOLO
- **Supply:** 120V/240V, 50/60 Hz
- **Load:** 15 A max. (resistive load)
- **Power:** 1800W @ 120V
  - 3600W @ 240V
- **GFCI:** Class A (5 mA TRIP LEVEL)
- **Approvals:** CSA/C, US
- **Display range:** 32°F to 140°F (0°C to 60°C)
- **Setting Range:** 40°F to 82°F or 104°F (5°C to 28°C or 40°C)
- **Storage:** -4°F to 120°F (-20°C to 50°C)
Nuheat Controls
Non-Programmable Option
Tempo

Tempo
Installation of a floor-sensor probe is required for temperature display.

Tempo benefits:
- Suitable for tile and stone floors
- Digital temperature display
- Backlit screen
- On/off switch
- Dual Voltage (120V & 240V)
- Built-in Class A GFCI
- Manufacturer’s limited three (3) year warranty

120V & 240V volt specifications
Model: TEMPO
Supply: 120V/240V, 50/60 Hz
Load: 15 A max. (resistive load)
Power: 1800W @ 120V
3600W @ 240V
GFCI: Class A (5 mA TRIP LEVEL)
Approvals: CSA/C, US
Display range: 32°F to 140°F (0°C to 60°C)
Setting Range: 40°F to 82°F or 10°F to 28°C or 40°C
Storage: -4°F to 120°F (-20°C to 50°C)
**MatSense Pro**

Our electrical fault indicator is a device that simultaneously monitors the hot, neutral and ground wires during your Nuheat installation. Use an electric fault indicator to ensure a correct Nuheat installation every time.

The MatSense Pro will set off a distinct alarm when:
- the sensor finds an open circuit
- the sensor detects a short circuit

The MatSense Pro is the installer’s safeguard to ensure homeowners that their Nuheat Floor Heating System is installed correctly every time.

Simply connect the conductor wires and ground wires to the MatSense Pro and turn it on.

The MatSense Pro is available for sale at all Nuheat Authorized Distributor locations. For a location near you, please log onto www.nuheat.com and click “Where to buy” or simply call 1 (800) 778-9276.

Using the MatSense Pro DOES NOT replace the need to conduct insulation or resistance tests of Nuheat Mat prior, during and after the installation. For more information on installation please visit www.nuheat.com.

**NOTE:** Nuheat Mat is repairable if damaged. If Nuheat Mat is damaged, please contact Nuheat Customer Care at 1 (800) 778-9276.
Troubleshooting
Replacing a Broken Tile

REPLACING TILE OVER NUHEAT
To prevent damage to your Nuheat Floor Heating System while replacing a tile, please follow these instructions:

STEP 1
Turn off the power to Nuheat Mat at the main power box or have a certified electrician disconnect the wires from the relay or junction box.

STEP 2
Perform a continuous insulation test with your ohm/multimeter. Monitor the readings on your ohm/multimeter as you replace the tile to ensure that the mat has not been damaged.

STEP 3
Use a grout scraper to score the grout 1/8” deep around the tile to be removed, this must be done carefully by hand. Do not use a power tool.

STEP 4
Take a round-head hammer and carefully break up the tile starting from the center. Use only the force required to break the tile.

STEP 5
Position a cold chisel at a steep angle and begin removing the tile from the thinset. When you find a mat wire, move the chisel parallel to it remembering that wires are spaced apart by approximately 1 1/2” – never cross the wires directly with your chisel.

STEP 6
Use a round-head hammer to break up the remaining thinset over the mat. Remember to use only the force required to break the thinset.
STEP 7
Locate a wire in the mat. Position a cold chisel beside the wire. Run your chisel parallel to the wire line to remove the thinset – never cross the wires with your chisel. Carefully remove the remaining grout around the bare space with your cold chisel to ensure that the replacement tile fits properly.

STEP 8
Set your digital ohm/multimeter to the 200 ohms setting. Add alligator clips to the ohm/multimeter to make testing easier. Connect the black and white mat lead wires to the probes of the multimeter. Ensure that the resistance reading is within the range of +10% to -5% of the resistance rating listed on your mat tag. Document your test results.

STEP 9
To lay your replacement tile evenly to the surrounding tiles, try grinding down the back of the tile to remove some of the depth.

STEP 10
Apply a coat of thinset. Set the tile into place and ensure that it is level with the floor.

STEP 11
Test the mat.

STEP 12
Reconnect the Nuheat Mat system.
<table>
<thead>
<tr>
<th>Series</th>
<th>Dimensions (inches)</th>
<th>Sq. Ft.</th>
<th>Ohms</th>
<th>Watts</th>
<th>Model Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5ft Series</td>
<td>40 x 27</td>
<td>7.5</td>
<td>160</td>
<td>0.8</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>40 x 32</td>
<td>8.9</td>
<td>135</td>
<td>0.9</td>
<td>107</td>
</tr>
<tr>
<td></td>
<td>40 x 46</td>
<td>11.5</td>
<td>105</td>
<td>1.1</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>40 x 48</td>
<td>13.3</td>
<td>90</td>
<td>1.3</td>
<td>160</td>
</tr>
<tr>
<td>4ft Series</td>
<td>48 x 24</td>
<td>8.0</td>
<td>150</td>
<td>0.8</td>
<td>96</td>
</tr>
<tr>
<td></td>
<td>48 x 30</td>
<td>10.0</td>
<td>120</td>
<td>1.0</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>48 x 36</td>
<td>12.0</td>
<td>150</td>
<td>1.2</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td>48 x 48</td>
<td>13.3</td>
<td>75</td>
<td>1.6</td>
<td>192</td>
</tr>
<tr>
<td>5ft Series</td>
<td>60 x 24</td>
<td>10.0</td>
<td>120</td>
<td>1.0</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>60 x 30</td>
<td>12.5</td>
<td>96</td>
<td>1.3</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>60 x 36</td>
<td>15.0</td>
<td>83</td>
<td>1.5</td>
<td>180</td>
</tr>
<tr>
<td></td>
<td>60 x 42</td>
<td>17.5</td>
<td>69</td>
<td>1.8</td>
<td>210</td>
</tr>
<tr>
<td></td>
<td>60 x 48</td>
<td>20.0</td>
<td>60</td>
<td>2.0</td>
<td>240</td>
</tr>
<tr>
<td></td>
<td>60 x 60</td>
<td>25.0</td>
<td>48</td>
<td>2.5</td>
<td>300</td>
</tr>
<tr>
<td></td>
<td>72 x 24</td>
<td>12.0</td>
<td>100</td>
<td>1.2</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td>72 x 30</td>
<td>15.0</td>
<td>80</td>
<td>1.5</td>
<td>180</td>
</tr>
<tr>
<td></td>
<td>72 x 36</td>
<td>18.0</td>
<td>67</td>
<td>1.8</td>
<td>216</td>
</tr>
<tr>
<td></td>
<td>72 x 42</td>
<td>21.0</td>
<td>57</td>
<td>2.1</td>
<td>252</td>
</tr>
<tr>
<td></td>
<td>72 x 48</td>
<td>24.0</td>
<td>50</td>
<td>2.4</td>
<td>288</td>
</tr>
<tr>
<td></td>
<td>72 x 60</td>
<td>30.0</td>
<td>40</td>
<td>3.0</td>
<td>360</td>
</tr>
<tr>
<td></td>
<td>72 x 72</td>
<td>36.0</td>
<td>33</td>
<td>3.6</td>
<td>432</td>
</tr>
<tr>
<td>7ft Series</td>
<td>72 x 24</td>
<td>14.0</td>
<td>88</td>
<td>1.4</td>
<td>168</td>
</tr>
<tr>
<td></td>
<td>84 x 24</td>
<td>17.5</td>
<td>69</td>
<td>1.8</td>
<td>210</td>
</tr>
<tr>
<td></td>
<td>84 x 30</td>
<td>21.0</td>
<td>57</td>
<td>2.1</td>
<td>252</td>
</tr>
<tr>
<td></td>
<td>84 x 42</td>
<td>26.0</td>
<td>43</td>
<td>2.9</td>
<td>294</td>
</tr>
<tr>
<td></td>
<td>84 x 48</td>
<td>28.0</td>
<td>43</td>
<td>2.8</td>
<td>336</td>
</tr>
<tr>
<td></td>
<td>84 x 60</td>
<td>35.0</td>
<td>34</td>
<td>3.5</td>
<td>420</td>
</tr>
<tr>
<td></td>
<td>84 x 72</td>
<td>42.0</td>
<td>29</td>
<td>4.2</td>
<td>504</td>
</tr>
<tr>
<td></td>
<td>96 x 24</td>
<td>16.0</td>
<td>75</td>
<td>1.6</td>
<td>192</td>
</tr>
<tr>
<td></td>
<td>96 x 30</td>
<td>20.0</td>
<td>60</td>
<td>2.0</td>
<td>240</td>
</tr>
<tr>
<td></td>
<td>96 x 36</td>
<td>24.0</td>
<td>50</td>
<td>2.4</td>
<td>288</td>
</tr>
<tr>
<td></td>
<td>96 x 42</td>
<td>28.0</td>
<td>43</td>
<td>2.8</td>
<td>336</td>
</tr>
<tr>
<td></td>
<td>96 x 48</td>
<td>32.0</td>
<td>38</td>
<td>3.2</td>
<td>384</td>
</tr>
<tr>
<td></td>
<td>96 x 60</td>
<td>40.0</td>
<td>30</td>
<td>4.0</td>
<td>480</td>
</tr>
<tr>
<td></td>
<td>96 x 72</td>
<td>48.0</td>
<td>25</td>
<td>4.8</td>
<td>576</td>
</tr>
<tr>
<td></td>
<td>96 x 96</td>
<td>64.0</td>
<td>19</td>
<td>6.4</td>
<td>768</td>
</tr>
<tr>
<td>9ft Series</td>
<td>108 x 24</td>
<td>18.0</td>
<td>67</td>
<td>1.8</td>
<td>216</td>
</tr>
<tr>
<td></td>
<td>108 x 30</td>
<td>22.5</td>
<td>53</td>
<td>2.3</td>
<td>270</td>
</tr>
<tr>
<td></td>
<td>108 x 36</td>
<td>27.0</td>
<td>44</td>
<td>2.7</td>
<td>324</td>
</tr>
<tr>
<td></td>
<td>108 x 42</td>
<td>31.5</td>
<td>38</td>
<td>3.2</td>
<td>378</td>
</tr>
<tr>
<td></td>
<td>108 x 48</td>
<td>36.0</td>
<td>33</td>
<td>3.6</td>
<td>432</td>
</tr>
<tr>
<td></td>
<td>108 x 60</td>
<td>45.0</td>
<td>27</td>
<td>4.5</td>
<td>540</td>
</tr>
<tr>
<td></td>
<td>108 x 72</td>
<td>54.0</td>
<td>22</td>
<td>5.4</td>
<td>648</td>
</tr>
<tr>
<td></td>
<td>108 x 96</td>
<td>63.0</td>
<td>19</td>
<td>6.3</td>
<td>756</td>
</tr>
<tr>
<td></td>
<td>108 x 108</td>
<td>72.0</td>
<td>17</td>
<td>8.4</td>
<td>912</td>
</tr>
<tr>
<td>10ft Series</td>
<td>118 x 24</td>
<td>19.7</td>
<td>61</td>
<td>2.0</td>
<td>236</td>
</tr>
<tr>
<td></td>
<td>118 x 30</td>
<td>24.6</td>
<td>49</td>
<td>2.5</td>
<td>295</td>
</tr>
<tr>
<td></td>
<td>118 x 36</td>
<td>29.5</td>
<td>41</td>
<td>3.0</td>
<td>354</td>
</tr>
<tr>
<td></td>
<td>118 x 42</td>
<td>34.4</td>
<td>35</td>
<td>3.4</td>
<td>413</td>
</tr>
<tr>
<td></td>
<td>118 x 48</td>
<td>39.3</td>
<td>31</td>
<td>3.9</td>
<td>472</td>
</tr>
<tr>
<td></td>
<td>118 x 56</td>
<td>49.2</td>
<td>24</td>
<td>4.9</td>
<td>590</td>
</tr>
<tr>
<td></td>
<td>118 x 60</td>
<td>59.0</td>
<td>20</td>
<td>5.9</td>
<td>708</td>
</tr>
<tr>
<td></td>
<td>118 x 84</td>
<td>58.8</td>
<td>17</td>
<td>8.9</td>
<td>926</td>
</tr>
<tr>
<td></td>
<td>118 x 96</td>
<td>78.7</td>
<td>15</td>
<td>9.5</td>
<td>944</td>
</tr>
<tr>
<td></td>
<td>118 x 108</td>
<td>88.5</td>
<td>14</td>
<td>8.9</td>
<td>962</td>
</tr>
<tr>
<td></td>
<td>118 x 116</td>
<td>95.1</td>
<td>13</td>
<td>9.5</td>
<td>1141</td>
</tr>
</tbody>
</table>