Three Zone 1100°C Tube Furnaces

have new, energy efficient designs incorporating Lindberg/Blue M exclusive Moldatherm® ceramic fiber insulation. Performance attributes include excellent temperature uniformity, fast heat-up and cool-down, and quick recovery with optimum power consumption. The furnace includes three independent, programmable controllers, one for each zone.

Features

- Innovative use of venting and insulating air spaces to create lower exterior surface temperatures
- Accepts an array of tube adapters (see chart)
- One set of (2) tube adapters included, standard, largest size supplied
- Flexible design, may be used for a variety of applications
- Long life Type “K” thermocouples

Digital Single Program, Multiple Segment Programmable Controller

- Three programmable controllers, one for each zone
- Microprocessor-based self-tuning, PID control (proportional, integral, derivative) provides optimum thermal process without overshoot
- Single program with multiple segments for ramp (up and down) and dwell (timed hold) temperature control. See page 35 for more information
- Adjustable high limit overtemperature protection
- Simultaneous LED display of actual temperature vs. setpoint
- May be configured to display temperature in either °C or °F

Optional RS485 Digital Communications Port

- RS485 Digital communications port available as an option. Allows controller to be connected to a PC for remote monitoring and control of the furnace. Up to 30 units can be connected to one PC. Please see page 35 for ordering information and additional options

Applications

- Annealing
- Crystal Growing
- Calibration
- Heat Treating

Model OF55566C, Solid Tube, Three-Zone Furnace includes three multiple-zone programmable controllers, one for each zone.

(Packet tube shown, not included)
1100°C Solid, Three Zone, Multi Segment Integrated Controller, Temperature Range 100°C to 1100°C

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Volts, Hz, 1Ø</th>
<th>Watts</th>
<th>Exterior Dimensions</th>
<th>Heated Zone</th>
<th>Ship Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>STF55346C</td>
<td>208/240V, 50/60Hz</td>
<td>3800</td>
<td>21” (533.4) x 17” (431.8) x 35” (889)</td>
<td>24” (609.6)</td>
<td>225 (102)</td>
</tr>
<tr>
<td>STF55666C</td>
<td>208/240V, 50/60Hz</td>
<td>11000</td>
<td>26” (660.4) x 22” (558.8) x 54” (1371.6)</td>
<td>36” (914.4)</td>
<td>255 (115)</td>
</tr>
</tbody>
</table>

*Process Tubes* These furnaces are designed for use with a variety of process tubes including alumina, mullite, quartz and metallics.

For information on process tubes contact your process tube supplier or call your Lindberg/Blue M sales representative.

One set of 2 Tube Adapters included with furnace, larger specified tube supplied. See table for additional options.

**Note:** Required power cord and hardwiring are not included.

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**STF55346C Profile**

- Degrees Centigrade
- 100°C span
- 8°C span
- 6” end zone
- 12” center zone
- 6” end zone

**Holding Power 50%**

Tests performed with 3” diameter process tube plugged with ceramic fiber.

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**Moldatherm® Tube Adapters (each sold separately)**

<table>
<thead>
<tr>
<th>Size</th>
<th>Model STF55346C</th>
<th>Model STF55666C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1”</td>
<td>59541</td>
<td>59541</td>
</tr>
<tr>
<td>2”</td>
<td>59542</td>
<td>59542</td>
</tr>
<tr>
<td>3”</td>
<td>59543&quot;</td>
<td>59543</td>
</tr>
<tr>
<td>4”</td>
<td>59545</td>
<td>59545</td>
</tr>
<tr>
<td>5”</td>
<td>59546</td>
<td>59546</td>
</tr>
<tr>
<td>6”</td>
<td>59548</td>
<td>59548</td>
</tr>
</tbody>
</table>

*One set of 2 included with furnace.*

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Actual performance may vary depending on load, chamber size, sample placement, ambient temperature and environmental conditions.

800-252-7100  www.lindbergblue.com
Mini-Mite™ 1100°C Tube Furnaces offer a selection of control instrumentation including multiple segment programmable or single setpoint control. All models feature energy efficient Moldatherm® insulation for quick heat-up and cool-down.

**Features**
- Compact, portable and lightweight design
- Split-hinge design simplifies loading and unloading
- Main power on/off switch on control panel
- Safety switch disconnects power to heating element when furnace is opened
- Long life type "K" thermocouple

**Applications**
- Pyrolysis
- Thermal Expansion
- Calibration
- Sintering
- Viscosity Testing

**Digital, Single Setpoint Controller**
- Microprocessor-based self-tuning PID control (proportional, integral, derivative) provides optimum thermal process without overshoot
- Single segment, single setpoint, 1 ramp to setpoint
- Adjustable high limit overtemperature protection
- Simultaneous LED display of actual temperature vs. setpoint
- May be configured to display temperature in either °C or °F

**Digital Single Program, Multiple Segment Programmable Controller**
- Microprocessor-based self-tuning PID control (proportional, integral, derivative) provides optimum thermal process without overshoot
- Single program with multiple segments for ramp (up and down) and dwell (timed hold) temperature control. See page 35 for more information
- Adjustable high limit overtemperature protection
- Simultaneous LED display of actual temperature vs. setpoint
- May be configured to display temperature in either °C or °F

**Optional RS485 Digital Communications Port**
- RS485 Digital communications port available as an option. Allows controller to be connected to a PC for remote monitoring and control of the furnace. Up to 30 units can be connected to one PC. Please see page 35 for ordering information and additional options
1100°C Mini-Mite™ Split-Hinge, Single Zone, Integrated Controller, Temperature Range 100 to 1100°C

<table>
<thead>
<tr>
<th>Furnace No.</th>
<th>Electrical Watts</th>
<th>Volts, Hz, 1Ø</th>
<th>Process Tube Diameter, in” (mm)</th>
<th>Heated Length, in” (mm)</th>
<th>Weight</th>
<th>Process Tube Heated Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>TF59035A</td>
<td>120V, 50/60 Hz</td>
<td>800</td>
<td>1 Segment 15” (381) x 1” (25.4)</td>
<td>12” (304.8)</td>
<td>35 (16)</td>
<td>12” (304.8)</td>
</tr>
<tr>
<td>TF59035C</td>
<td>208/240V, 50/60 Hz</td>
<td>800</td>
<td>1 Segment 15” (381) x 1” (25.4)</td>
<td>12” (304.8)</td>
<td>35 (16)</td>
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</tr>
</tbody>
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Digital, Multi Segment Programmable, 1100°C

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<th>Heated Length, in” (mm)</th>
<th>Weight</th>
<th>Process Tube Heated Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>TF59045A</td>
<td>120V, 50/60 Hz</td>
<td>800</td>
<td>16 Segment 15” (381) x 1” (25.4)</td>
<td>12” (304.8)</td>
<td>35 (16)</td>
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Process Tubes
These furnaces are designed for use with a variety of process tubes including alumina, mullite, quartz and metallic. For information on process tubes contact your process tube supplier or call your Lindberg/Blue M sales representative.

Note: All models include 10’ power cord.

Actual performance may vary depending on load, chamber size, sample placement, ambient temperature and environmental conditions.