Whether you need to heat your warehouse, garage, or other hard-to-heat spaces, the SunStar SIS/U Series infrared heaters provide both the fuel efficiency of radiant heat and the installation flexibility you need . . . and all at a comfortable price.

**SIS & SIU Series**

**Pull Through (Negative Pressure)**

**INFRARED TUBE HEATER**

SunStar infrared tube heaters are ideal for complete building heat or spot heating needs. The best applications are those where doors open and close frequently and in buildings where ceiling heights are above ten feet. The flexible SunStar infrared heating system can be designed to meet any commercial or industrial heating needs.

**HEAT LIKE THE SUN**

SunStar infrared tube heaters heat like the sun by transferring radiant heat energy directly into the area to be heated. This energy is then absorbed by concrete floors, objects and people and is then re-radiated to warm the surrounding area. This creates a warm comfort zone at floor level, not at the ceiling.

**FUEL SAVINGS UP TO 50%**

This extremely efficient method of heating can result in fuel savings of between 30% and 50% when compared to forced air convection heating. With the SunStar system, investment payback accrues not only from reduced energy costs, but from the reduced maintenance costs, too.
SIU SERIES
Provides more uniform radiant heat energy distribution. Ideal for high heat loss areas and spot heating.

SIS/SIU SERIES FEATURES

General Features
- 6 different Btu sizes and more than 60 different configurations to custom design your infrared heating system
- CSA design certified
- Available in natural and propane gas
- Optional elbows and corner reflectors
- Optional decorative grille
- Sidewall or through the roof venting
- Vented or indirect vented operation

Vacuum System
- Products of combustion are pulled through the combustion chamber for increased radiant efficiency and greater safety
- No draft hoods, totally enclosed combustion chamber
- Heavy duty draft inducer assembly with permanently lubricated, totally enclosed and heavy duty ball bearing motor for maintenance-free operation
- 30 second pre-purge period before ignition
- Diaphragm air switch for proof of venting before gas flow and ignition

Burner System
- Heavy duty cast iron burner
- Reliable direct spark ignition system and 100% Gas Shut-Off Safety Control
- Burner inspection sight glass
- Step-opening redundant combination gas valve for quiet ignition and added safety
- Inside or outside air for combustion
- Up to 50 ft. outside combustion air capability
- Diagnostic Monitoring Light System

Radiant Emitter Tube System
- 4” O.D. heat treated aluminized steel combustion chamber (10’ length)
- Standard highly emissive radiant tubes (10’ lengths)
- Optional aluminized steel radiant tubes (Tough Guy Option)
- 5 year limited warranty on all tubes
- Suitable for horizontal or angle mounting up to 45°
- Up to 75 feet sidewall vent capability

Reflector System
- Highly efficient aluminum reflectors
- Individual reflectors can be rotated up to 45° to direct heat where needed
- Optional end, corner, U-bend and side extension reflectors

SIS/SIU SERIES
Available in multiple configurations (straight, L,Z and expanded U-configuration) with lengths up to 50 feet.
Vented or indirect vented operation
Side wall or through the roof venting
Optional decorative grille

Ideal for radiant heat energy
Provides more uniform distribution.

SIS/SIU SERIES

• 30 second pre-purge period before ignition
• Diaphragm air switch for proof of venting
• CSA design certified

Available in natural and propane gas

Heavy duty draft inducer assembly with nPartitioning
Products of combustion are pulled through the vacuum system

General Features

Spot heating.

Heavy duty cast iron burner
Burner inspection sight glass

Combustion chamber for increased radiant efficiency and greater safety

Burner system

Step-opening redundant combustion
Reliable direct spark ignition system and 100%
Diagnostic Monitoring Light System
Gas Shut-Off Safety Control

Heating System

Ray reflectors
Highly efficient aluminum reflectors

Reflectors System

• 5 year limited warranty
• Optional aluminized steel radiant tubes (Tough Guy Option)

USI OPTIONS

• Upto 75 feet sidewall capability
• Standard highly emissive radiant tubes (10' lengths)
• Suitable for horizontal or angle mounting up to 45˚

Radiant Emitter Tube System

• 4" O.D. heat treated aluminized steel combustion

Air Intake

Combustion

GAS TYPE BURNER PRESSURE SUPPLY PRESSURE VOLTAGE AMPS IGNITION TYPE
N5-Natural 3.5" W.C. 5" W.C. MIN. MAX. 120 VAC 2.4 Direct Spark
L5-Propane 10" W.C. 11" W.C. 14" W.C. 60 Hz

NOTE: For installations higher than 2000 ft above sea level, call SunStar for recommended derating of heaters.
TYPICAL SIS/SIU SERIES LAYOUTS

MINIMUM RECOMMENDED MOUNTING HEIGHTS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>Height at Horizontal</th>
<th>Height at 45˚ Angle</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIS/U 50</td>
<td>11 Feet</td>
<td>10 Feet</td>
</tr>
<tr>
<td>SIS/U 75</td>
<td>13 Feet</td>
<td>12 Feet</td>
</tr>
<tr>
<td>SIS/U 100</td>
<td>14 Feet</td>
<td>13 Feet</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MODEL</th>
<th>Height at Horizontal</th>
<th>Height at 45˚ Angle</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIS/U 125</td>
<td>14 Feet</td>
<td>13 Feet</td>
</tr>
<tr>
<td>SIS/U 150</td>
<td>15 Feet</td>
<td>14 Feet</td>
</tr>
<tr>
<td>SIS/U 175</td>
<td>16 Feet</td>
<td>15 Feet</td>
</tr>
</tbody>
</table>

This chart is intended as a guide only and heaters may be mounted at various heights and angles. Please consult your local SunStar Representative or Distributor for a detailed analysis of your particular infrared heating requirements.

NOTES: Since straight tubes are always hotter at the burner end than at the exhaust end, always observe the minimum recommended mounting heights shown on the specification sheet for greatest human comfort. Use SIU series instead of SIS series for spot heating applications.

MINIMUM CLEARANCES TO COMBUSTIBLES

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>SIDE</th>
<th>CEILING</th>
<th>BELOW</th>
<th>END</th>
<th>(45˚) FRONT</th>
<th>(45˚) REAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIS/U 50</td>
<td>24&quot;</td>
<td>6&quot;</td>
<td>40&quot;</td>
<td>15&quot;</td>
<td>48&quot;</td>
<td>12&quot;</td>
</tr>
<tr>
<td>SIS/U 75</td>
<td>24&quot;</td>
<td>6&quot;</td>
<td>60&quot;</td>
<td>15&quot;</td>
<td>52&quot;</td>
<td>12&quot;</td>
</tr>
<tr>
<td>SIS/U 100</td>
<td>28&quot;</td>
<td>6&quot;</td>
<td>76&quot;</td>
<td>15&quot;</td>
<td>58&quot;</td>
<td>12&quot;</td>
</tr>
<tr>
<td>SIS/U 125</td>
<td>32&quot;</td>
<td>6&quot;</td>
<td>82&quot;</td>
<td>20&quot;</td>
<td>66&quot;</td>
<td>12&quot;</td>
</tr>
<tr>
<td>SIS/U 150</td>
<td>36&quot;</td>
<td>6&quot;</td>
<td>87&quot;</td>
<td>20&quot;</td>
<td>70&quot;</td>
<td>12&quot;</td>
</tr>
<tr>
<td>SIS/U 175</td>
<td>42&quot;</td>
<td>6&quot;</td>
<td>93&quot;</td>
<td>20&quot;</td>
<td>75&quot;</td>
<td>12&quot;</td>
</tr>
</tbody>
</table>

When used indirect vented, clearance to ceiling from top of exhaust hood must be 12” on SIS/U50-SIS/U75, and 18” on SIS/U100-SIS/U175. Call SunStar if reduced clearances are required.

COMBUSTION AIR & VENTILATION

Combustion air and venting requirements for all gas-fired heating equipment must be provided per National Fuel Gas Code NFPA 54 or the authority having jurisdiction over the installation. In contaminated atmospheres or high humidity areas, optional outside air for combustion can be supplied. Heaters can be common vented, direct vented or indirect vented. Refer to Installation and Operation Instructions for further information. A vented installation must be vented to the outside of the building with a flue pipe. An indirect vented installation requires a minimum ventilation flow of 4 CFM per 1000 Btu/hr of total installed heater capacity on natural gas by either gravity or power ventilation (4.18 CFM per 1000 Btu/hr on propane). For indirect vented applications, building exhaust opening must be located above the level of the heaters and inlet air openings must be located below the level of the heaters.

FOR YOUR SAFETY

OPERATE SUNSTAR GAS INFRARED HEATERS WITH PROPER CARE AND OBSERVE ALL SAFETY PRECAUTIONS. Installation and service must be performed by a licensed contractor. The installation must conform with local codes. In the absence of local codes, the installation must conform with the National Fuel Gas Code ANSI Z223.1 (latest edition also known as NFPA 54) or CGA B149 installation codes (latest edition). These codes are available from ANSI, 1430 Broadway, New York, NY 10018, The National Fire Protection Association, Inc., Batterymarch Park, Quincy, MA 02269 or the Canadian Gas Association, 55 Scarsdale Road, Toronto, Ontario M3B 2R3 Canada.

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