



THE ECONOMICAL ALTERNATIVE FOR HARD-TO-HEAT SPACES

- Manufacturing Plants
- Warehouses
- Auto Dealerships
- Aircraft Hangars
- Loading Docks
- Weld Shops
- Car Washes
- Fire Stations
- Greenhouses
- Gymnasiums
- Garages
- Machine Shops
- Tennis Courts
- Swimming Pools
- Maintenance Shops
- Farm Buildings
- Truck Service Areas
- Auto Body Shops



A Complete Family of Products

SunStar offers a complete line of infrared heating products including tube heaters, ceramic heaters and construction heaters. All SunStar heaters are available for use on either natural gas or propane. Included in the SunStar product line are both positive and negative pressure tube heaters with sizes from 40,000 -200,000 BTU/hr. Also included is the SunStar “Eclipse” series of compact (9’ 2” overall length) tube heaters that are certified for residential garage applications and range in size from 25,000-45,000 BTU/Hr. Additional products include both direct spark ignition and millivolt control high intensity ceramic infrared heaters with sizes that range from 26,000-155,000 BTU/Hr, and for temporary heat SunStar offers the robust, 100,000 BTU/Hr manually or thermostatically controlled RCH series construction heaters.

Heat Like the Sun

All SunStar infrared heaters heat like the sun by transferring radiant heat energy directly into the area to be heated. This radiant heat 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. This principle is similar to the sun’s radiant heat energy heating the Earth but not the upper atmosphere.

Competitive Heaters Are Blowing Hot Air

In conventional forced air convection heating systems, hot air rises to the ceiling and must stratify downward to achieve a comfortable work environment. Then a door opens and heat is lost. With infrared heat, it’s the radiant heat energy itself that heats from the floor up, satisfying the work area first. Now when doors open and close, most of the heat energy remains, allowing for a quicker recovery period and a more efficient and effective heating system.



CONVECTION HEAT
Forced air convection heat works from the top down, heating the air first and stratifying from the ceiling downward. More heat is wasted in the upper area the building.



INFRARED HEAT
Infrared heat works from the bottom up, warming people, floors, objects and machines first. Comfortable heat is retained in the lower working areas of your building.

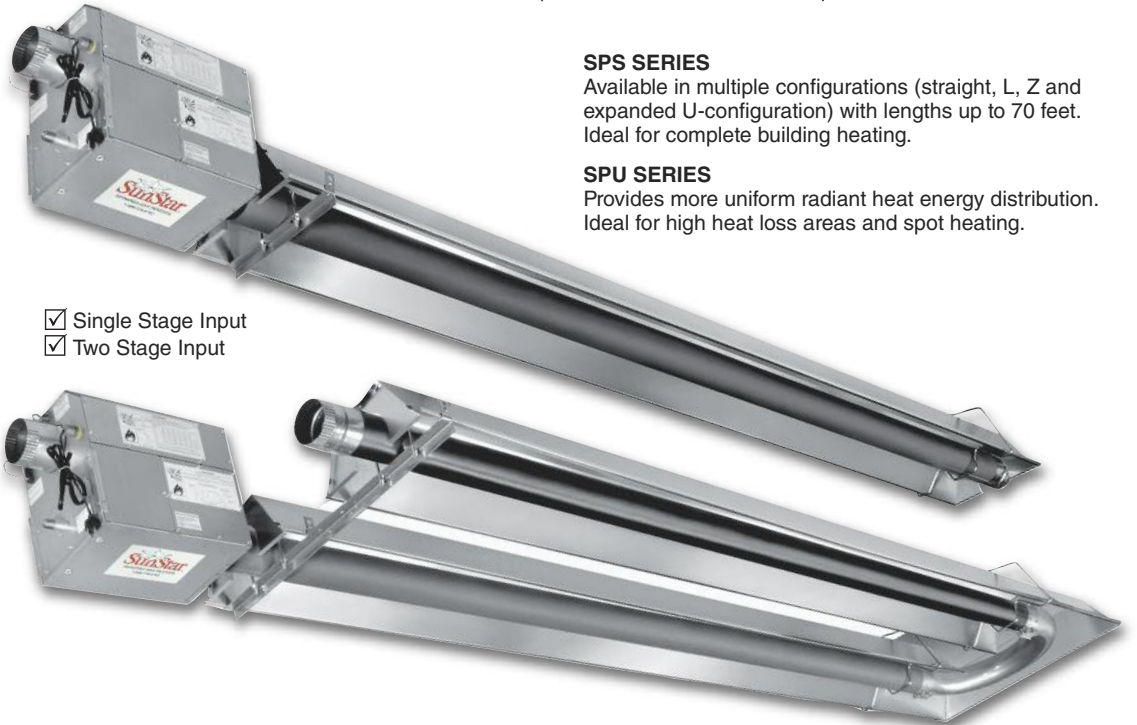
Lower Your Fuel Bills

Gas infrared heat provides both warmth and comfort. In many applications building owners experience fuel savings of between 30% to 50% when compared to forced air convection heating systems, and reported fuel savings have been as high as 70% in very large buildings. With SunStar products, investment payback accrues not only from reduced energy costs, but from the reduced maintenance costs too.

SunStar infrared heaters offer real comfort, versatility and unbeatable value, so choose comfort and choose SunStar.

SPS & SPU Series

PUSH THROUGH (POSITIVE PRESSURE)



- Single Stage Input
- Two Stage Input

SPS SERIES

Available in multiple configurations (straight, L, Z and expanded U-configuration) with lengths up to 70 feet. Ideal for complete building heating.

SPU SERIES

Provides more uniform radiant heat energy distribution. Ideal for high heat loss areas and spot heating.

Clearances To Combustibles

Infrared Heater installations require that minimum clearances shall be maintained from combustible materials at all times. The clearances below the heater can vary from 40" to 132" based on the model and the type of heater selected.

Please visit www.sunstarheaters.com for the individual product specification sheets and/or Installation & Operating Instructions for the specific clearances information.

Minimum Mounting Heights

Minimum Mounting Heights are shown as a guideline for human comfort and uniform energy distribution.

Mount heaters as high as possible. Since straight tubes are always hotter at the burner end than at the exhaust end, always use U-tube heater configuration for spot or area heating applications.

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 most commercial or industrial heating need.

MODELS	SINGLE STAGE BTU/HR INPUT	TWO STAGE		TOTAL EMITTER TUBE LENGTH							MIN. MOUNTING HEIGHT AT HORIZONTAL	
		BTU/HR HIGH INPUT	BTU/HR LOW INPUT	10'	20'	30'	40'	50'	60'	70'		
SPS/U 40	40,000	40,000	25,000	●	●							10 FT
SPS/U 50	50,000	50,000	30,000		●	●	●					11 FT
SPS/U 75	75,000	75,000	50,000		●	●	●					13 FT
SPS/U 100	100,000	100,000	65,000			●	●					14 FT
SPS/U 125	125,000	125,000	80,000			●	●	●	●			14 FT
SPS/U 150	150,000	150,000	100,000				●	●	●			15 FT
SPS/U 175	175,000	175,000	110,000					●	●	●		16 FT
SPS/U 200	200,000	200,000	125,000					●	●	●		18 FT

CONTROL SUFFIX	GAS TYPE	CONTROL OPTION DESCRIPTION	VOLTAGE	AMPS	IGNITION TYPE	FLUE CONN.	FRESH AIR CONN.
N5 / L5	NAT / LP	SINGLE STAGE GAS VALVE SINGLE STAGE INPUT	120 VAC 60 HZ	1.8	DIRECT SPARK	4" ROUND	4" ROUND
N7 / L7	NAT / LP	TWO STAGE GAS VALVE TWO STAGE INPUT - HIGH/LOW FIRE					

- 7 different BTU sizes and more than 60 different configurations to custom design your infrared heating system
- Products of combustion are pushed through the combustion chamber
- Single stage or two stage input controls
- Optional decorative grille, elbow and corner reflectors
- Sidewall or through the roof venting
- Vented or indirect vented operation
- Tube Integrity Safety System (TISS)
- Blower motor totally enclosed in the burner box. Ideal for applications where minimal noise (less than 50 dB) is desired.
- Pre-purge and Post purge functions
- Heavy duty cast iron burner
- Reliable direct spark ignition system and 100% gas shut-off safety control
- Step-opening redundant combination gas valve for quiet ignition and added safety
- Up to 25 ft. outside combustion air capability
- Diagnostic Monitoring Light System
- Line voltage or 24V thermostat connection
- 4" O.D. heat treated aluminized steel or aluminotherm steel combustion chamber (10' length)
- Standard highly emissive radiant tubes (10' lengths)
- Optional heat treated aluminized steel radiant tubes (Tough Guy Option)
- 5 year limited warranty on all tubes
- Up to 25 ft sidewall vent capability
- Highly efficient aluminum reflectors

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SIS & SIU Series

PULL THROUGH (NEGATIVE PRESSURE)



SIS Series SIU Series

Available in multiple configurations: straight, L, Z and expanded U-configuration, with lengths up to 50 ft.

Provides more uniform radiant energy distribution. Ideal for high heat loss areas and spot heating.

MODELS	SINGLE STAGE BTU/HR INPUT	TOTAL EMITTER TUBE LENGTH						MIN. MOUNTING HEIGHT AT HORIZONTAL
		15'	20'	30'	40'	50'	60'	
SIS/U 50	50,000	●	●	●				11 FT
SIS/U 75	75,000		●	●				13 FT
SIS/U 100	100,000			●	●			14 FT
SIS/U 125	125,000			●	●	●		14 FT
SIS/U 150	150,000				●	●		15 FT
SIS/U 175	175,000				●	●		16 FT
SIS/U 200	200,000					●	●	18 FT

GAS TYPE	CONTROL SUFFIX	BURNER PRESSURE	SUPPLY PRESSURE		VOLTAGE	AMPS	IGNITION TYPE	FLUE CONN.	FRESH AIR CONN.
			MIN	MAX					
NATURAL	N5	3.5" W.C.	5" W.C.	14" W.C.	120 VAC	2.4	DIRECT SPARK	4" ROUND	4" ROUND
PROPANE	L5	10" W.C.	11" W.C.	14" W.C.	60 HZ				

- 7 different BTU sizes and more than 60 different configurations to custom design your infrared heating system
- Products of combustion are pulled through the combustion chamber for increased radiant efficiency and greater safety
- Optional decorative grille, elbow and corner reflectors
- Sidewall or through the roof venting
- Vented or indirect vented operation
- 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
- Heavy duty cast iron burner

- Reliable direct spark ignition system and 100% Gas Shut-Off Safety Control
- Step-opening redundant combination gas valve for quiet ignition and added safety
- Up to 50 ft. outside combustion air capability
- Diagnostic Monitoring Light 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
- Up to 75 feet sidewall vent capability
- Highly efficient aluminum reflectors

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SIR Series

The SunStar Eclipse



- Available in BTU sizes from 25,000 to 45,000
- Compact length – overall length is 9'2" for ease of installation
- Efficiencies range up to 84.5%
- Installation as low as 8' above floor
- Optional deflector kit for reduced clearances below

Residential And Commercial – Certified for residential garage as well as commercial applications

Vacuum System – Products of combustion are pulled through the combustion chamber for greater safety ...virtually eliminates the possibility of combustion gases leaking into the heated space.

U-Tube Design – Provides uniform emitter tube temperatures and energy distribution on the floor ...unlike straight tube heaters which are always hotter at the burner end than at the exhaust end.

Warranty – 5-year limited combustion chamber warranty.

Other Features – Heat treated, aluminized steel tubes, aluminum reflectors with 97% reflectivity rating, direct spark ignition system with 100% gas safety shut-off control and 30-second prepurge, diaphragm safety switch for proof of venting, and system indicator lights.

MODEL NO.	INPUT BTU/Hr	GAS TYPE	BURNER PRESSURE	SUPPLY PRESSURE MIN	SUPPLY PRESSURE MAX	VOLTAGE	AMPS	IGNITION TYPE	FLUE CONN.	FRESH AIR CONN.
SIR 25	25,000	NATURAL	5" W.C.	5" W.C.	14" W.C.	120 VAC 60 HZ	2.4	DIRECT SPARK	4" ROUND	4" ROUND
SIR 35	35,000	PROPANE	10" W.C.	11" W.C.	14" W.C.					
SIR 45	45,000									

Model Selection

Model numbers are based on BTU/Hr input (e.g., 100,000 BTU/Hr), total emitter length (e.g., 40 feet), and control suffix for gas type (e.g., natural gas – Single Stage (e.g. N5) or Two Stage (e.g. N7)).

For this example, the model number for a pull through (negative pressure) straight tube heater with Single Stage natural gas control would be SIS100-40-N5. For the same example, the U-tube heater model number would be SIU100-40-N5.

For the same example, the model number for a push through (positive pressure) straight tube heater with a Two Stage natural gas control would be SPS100-40-N7. Using the same example, the U-tube heater model number would be SPU100-40-N7.

Tough Guy Option

SunStar also offers a "Tough Guy" option for more corrosive and harsh environments with heat treated aluminized steel tubes. For the example above, the model number for a pull through (negative pressure) straight tube heater with the "Tough Guy" option would be SIS100-40-TG-N5.

Note: SunStar's "Tough Guy" Option is recommended for dairy barns, greenhouses, swimming pools, waste water treatment plants, chemical plants and other high humidity or corrosive type environments. Also the SPS or SPU series with the "Tough Guy" Option is highly recommended for car wash applications.

INFRARED CERAMIC HEATERS

The SunStar StarGlo is the answer for spot or area heating. It is also ideal for the replacement of existing ceramic heaters. Indirect vented operation – requires mechanical or gravity ventilation. Verify clearances to combustibles requirements before product selection.

The SunStar StarGlo SG Series DIRECT SPARK IGNITION

- Capacities from 30,000 to 155,000 BTU/hr
- Dimpled tile assembly design for increased radiant efficiency
- Equipped with 100% gas shut-off safety control
- Constructed of aluminized steel for corrosion-resistance
- Aluminum reflectors designed to maximize radiant output
- Optional protective radiant screen
- 120/24V transformer furnished
- Requires 37" to 65" clearances above the heater



GAS TYPE	BURNER PRESSURE	SUPPLY PRESSURE	
		MIN	MAX
NAT	6" W.C.	7" W.C.	14" W.C.
LP	10" W.C.	11" W.C.	14" W.C.

Supply voltage: 115V Amp Draw: 0.40 Amp
Gas Connection: 1/2" NPT Female

MODELS	GAS TYPE	INPUT BTU/HR	MIN. MOUNTING HEIGHT AT HORIZ.
SG3-N	NAT	30,000	12 FT
SG3-L	LP	32,000	12 FT
SG4-N	NAT	40,000	12 FT
SG6-N	NAT	60,000	13 FT
SG6-L	LP	66,000	13 FT
SG8-N	NAT	80,000	14 FT
SG10-N	NAT	100,000	15 FT
SG10-L	LP	100,000	15 FT
SG12-N	NAT	120,000	16 FT
SG13-L	LP	130,000	17 FT
SG14-N	NAT	140,000	17 FT
SG15-N	NAT	155,000	18 FT

The SunStar StarGlo SGM Series MILLIVOLT STANDING PILOT

- Capacities from 26,000 to 104,000 BTU/Hr
- Does not require external electrical power to operate
- Millivolt standing pilot operation with 100% gas shut-off safety control
- Aluminized steel construction
- Suitable for horizontal or angle mount up to 30°
- Requires 24" to 36" clearances above the heater



- Requires 750MV thermostat
- Aluminum reflectors
- Protective radiant screen included
- Optional reflector extensions available

Gas Connection: 1/2" NPT Female

MODELS	GAS TYPE	INPUT BTU/HR	MIN. MOUNTING HEIGHT AT HORIZ.
SGM3-N1	NAT	26,000	12 FT
SGM3-L1	LP	26,000	12 FT
SGM6-N1	NAT	52,000	14 FT
SGM6-L1	LP	52,000	14 FT
SGM10-N1	NAT	104,000	15 FT
SGM10-L1	LP	104,000	15 FT

GAS TYPE	BURNER PRESSURE	SUPPLY PRESSURE	
		MIN	MAX
NAT	6" W.C.	7" W.C.	14" W.C.
LP	10" W.C.	11" W.C.	14" W.C.

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RCH Series INFRARED CONSTRUCTION HEATER

- SunStar's RCH model heater is ideal for construction sites, unheated work areas and supplemental heat in large buildings
- Heats people and work areas directly, before heating the air
- No electricity is required
- The cylindrical stainless steel emitter beams radiant heat around the entire circumference of the heater
- Available in both manual and energy saving thermostatically controlled models



- No moving parts
- Compact 14" diameter base
- Cast iron burner head with stamped steel burner
- Heats up to 2500 sq. ft.
- Optional 10ft hose and LP tank regulator with POL fitting for all LP gas units
- Max gas supply pressure: 14" W.C. or 1/2 PSIG
- Gas connection: 1/2" NPT Female

MODELS	CONTROL TYPE	GAS TYPE	INPUT BTU/HR	MIN. CLEARANCE TO COMBUSTIBLES	
				TOP	SIDE
RCH100-N6C	MANUAL	NAT	100,000	54"	60"
RCH100-L6C		LP	95,000		
RCH100-N9A	THERMOSTAT	NAT	100,000		
RCH100-L9A		LP	95,000		

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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 Installation and Operating Instructions and local codes, NFPA 54 or CGA B149. Visit our website for detailed clearances to combustibles or other installation requirements.

SunStar Heating Products, Inc.

306 West Tremont Avenue
PO Box 36271 Charlotte, North Carolina 28236
Telephone (Toll Free): (888) 778-6782 (704) 372-3486 Fax (704) 332-5843

Email: info@sunstarheaters.com www.sunstarheaters.com

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