THERMAL SOLUTIONS FOR POWER GENERATION
Phillips and Temro offers a full line of circulation heaters that are designed, tested and validated to meet OEM standards.

- Provides engine warming for quick, clean starts
- Reduces time to reach operating temperatures and full-load acceptance
- All products are available with a safety thermostat to prevent overheat conditions

**Thermosiphon Heaters**

- **ThermoCar** (0.5 kW to 2.0 kW)
- **Circulation Tank Heater** (0.75 kW to 2.25 kW)
- **ThermoStart** (0.5 kW to 4.0 kW)

**Forced Flow Heaters** with integrated circulating pumps for even heat distribution

- **FlowStart** (0.5 kW to 2.0 kW)
- **Forced Flow Circulation Heaters** (1.5 kW, 2.7 kW)
- **TopStart** (0.5 kW to 12.0 kW)

**Biodiesel and Oil**

- **TopStart Biodiesel and Oil** (1 to 3 kW)
Phillips & Temro offers a complete line of products to meet all thermal requirements of power gensets.

### IN-LINE FUEL & FLUID WARMING

**I-909 & I-15**
- Most versatile, multi-purpose in-line warmer
- Diesel & biodiesel up to B100 compatible
- Thermostatically controlled 78°-95°F (25°-35°C)

**LineHauler™**
- Diesel applications
- Shut-off thermostat available
- Dual fuel inlet

**Midranger™**
- Diesel, biodiesel, & fluid compatible
- No moving parts – maintenance free
- Easy installation

**Multi Fuel & Fluid**
- Diesel, biodiesel up to B100, hydraulic, engine oil, transmission & other fluid compatible
- No moving parts – maintenance free
- Longest in-line fuel warmer for maximum heat transfer

**Compressed Natural Gas Fuel Heat Exchangers™**
- Keeps natural gas from dropping below the accepted engine temperature
- Raises the fuel pressure as it is heated
- Integral thermostat option available

Phillips & Temro offers a complete line of fuel and fluid heaters that deliver the perfect solution for dependable engine operation in cold weather.
IMMERSION HEATERS AND HARNESSES

Immersion heaters provide direct heat to the engine coolant or oil to ensure quick starts and reduce engine wear.

There are a variety of harnesses available, including Y-Cords that connect the heater to a thermostat for energy efficiency.

- Reliable engine starts and operation
- Reduction of engine wear and stress on other components
- Fewer emissions
- Keeping the engine warmer than the surrounding ambient temperature reduces condensation in the engine sump
- Wattage options: 150 to 1500
- Input Voltage: 120, 230, 240

FANS

Phillips & Temro offers a comprehensive line of axial fan products from single piece molded to hybrid to custom steel applications.

Our fans are offered in a variety of materials and blade profiles.

- Metal Spider Fans: 10-72 in (25.4-182.9 cm)
- Metal Segmented Fan: 59-118 in (149.9-299.7 cm)
- One Piece Molded Fan: 12-39 in (30.5-99.1 cm)
- Hybrid Fan: 12-65 in (30.5-165.1 cm)
- Reversible Fans: 22.8-53 in (57.9-134.6 cm)
- Modular Fans: 11-39 in (27.9-99.1 cm)
SILICONE PAD HEATERS

These durable engine heaters are designed to provide warmth to areas with fluid susceptible to freezing or thickening such as oil pans, fuel filters and crank case breather valves. CE and CSA approved silicone pads are available.

- Warms internal engine components for quick starts in cold weather
- Reduces engine wear by improving the flow of engine oil
- Resistant to battery acid

BATTERY HEATERS

Battery heaters are placed close to your engine batteries to maximize performance. Our heaters are available in a variety of sizes to meet your demand.

- Maintain available cold cranking amps in cold weather by warming the batteries
- Efficient direct heat transfer
- Four heating options available – silicone pad, blanket, box heater, and coolant-based warmer
- For rental applications and other short-term heating applications
Power To Rely On – Across the Globe

Phillips & Temro Industries creates quality heating and cooling products that improve the performance of your stationary or portable power generator. PTI offers both standard or custom heating and cooling products for generators. We have offices, distributors, and manufacturing facilities worldwide.

For More Information
Please visit www.phillipsandtemro.com/locations or contact sales@phillipsandtemro.com