

The HRSR Series is designed to receive total liquid flow, reduce gas temperatures to desired levels, and lower exhaust noise reducing the need for a muffler. The modulating exhaust bypass assembly will allow the tempering of exit temperatures to achieve optimal heat recovery. The radial design allows finned tube access for cleaning and inspection. A single row of finned tubing with optional removable Swagelok™ compression fittings, provides maximum thermal efficiency and easy access for cleaning, inspection or replacement.



## HRSR-3Z2H22.6CSS

Federal Research Center, Silver Spring, Maryland Recovering exhaust heat from Wartsila 5.8 mW engine generator; cooling 15,857 SCFM from 716°F to 310°F; and heating 210 GPM of water from 194°F to 270.8°F.



Engine Generators; cooling 18,373 SCFM from 698°F to 320°F;

and heating 175 GPM of water from 250°F to 350°F.





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Full Exhaust Bypass with Damper Assembly

Modulating Actuator

Liquid Manifold with Removable Compression Fittings

Control Panel Assembly

ASME Stamp (optional)

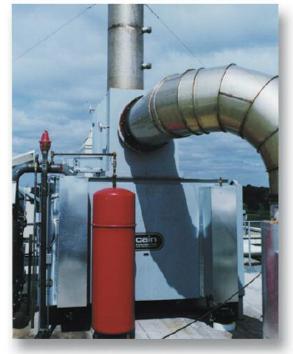
Factory Insulation, Carbon Steel Exterior, Stainless Steel Interior

**Structural Support** 

The HRSR is engineered for vertical or horizontal operation, combustion capacity up to 4000kW, and entering gas temperature up to 1,250°F to match the needs of your specific application.

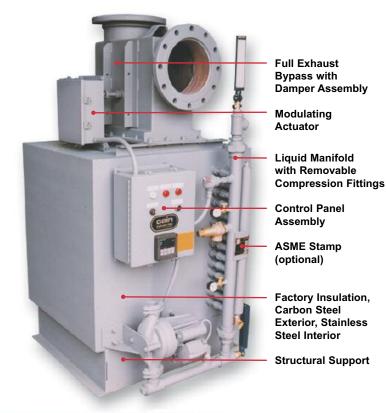






## HRSR-436D28SSP

Northrop Grumman, Palmdale, California Recovering Exhaust Heat from a natural gas engine generator; cooling 3,016 SCFM from 1,195°F to 401°F; and heating 253 GPM of water from 325°F to 350.1°F. The HRSR Series is designed to receive total liquid flow, reduce gas temperatures to desired levels, and lower exhaust noise reducing the need for a muffler. The modulating exhaust bypass assembly will allow the tempering of exit temperatures to achieve optimal heat recovery. The radial design allows finned tube access for cleaning and inspection. A single row of finned tubing with optional removable Swagelok™ compression fittings, provides maximum thermal efficiency and easy access for cleaning, inspection or replacement.





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## **MICRO COGEN**

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The HRSR is engineered for vertical or horizontal operation, combustion capacity up to 4000kW, and entering gas temperature up to 1,250°F to match the needs of your specific application.

 Full Exhaust Bypass with Damper Assembly
 Modulating

Factory Insulation, Carbon Steel Exterior, Stainless Steel Interior

Liquid Manifold with Removable Compression Fittings

ASME Stamp (optional)

Actuator

Control Panel Assembly

**Structural Support** 

HRSR-116826.5ALS (above)
Murrieta High School, Murrieta, California
Recovering Exhaust Heat from a natural gas
60kW micro turbine; cooling 856 SCFM from
580°F to 289°F; and heating 40 GPM of
water from 75°F to 90.2°F.

## HRSR-116826.5ALS (right)

Fontana High School, Fontana, California. Recovering Exhaust Heat from a natural gas 60kW micro turbine; cooling 856 SCFM from 580°F to 289°F; and heating 40 GPM of swimming pool water from 75°F to 90.2°F. Designed for outdoor use.

