

Turning Waste Heat Into New Revenue

EXPANDER-175

Technical Specification



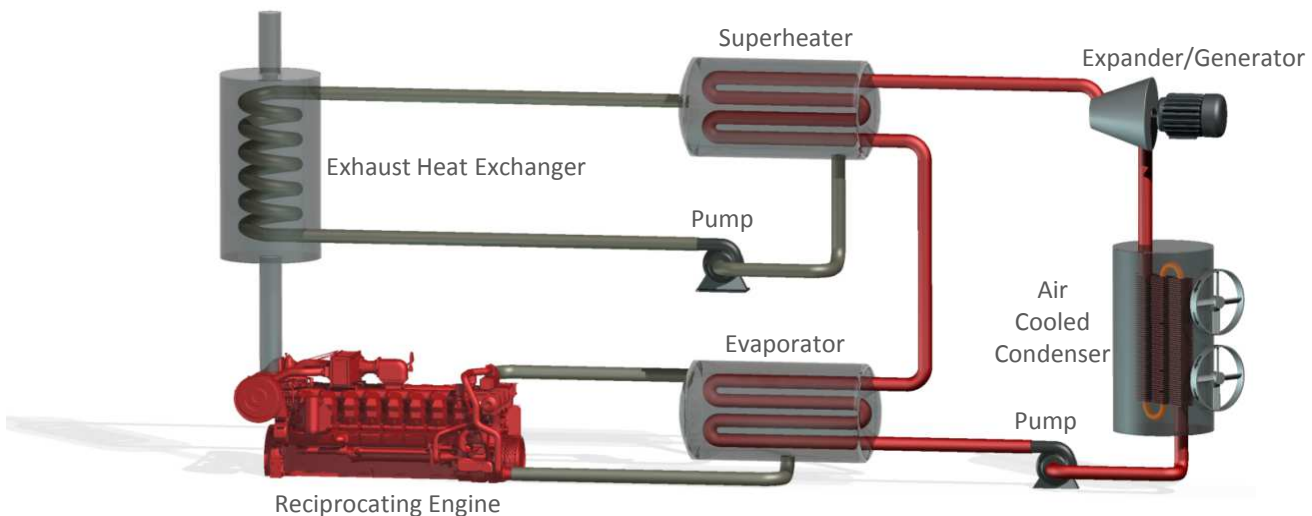
Product Description

The EXPANDER is a waste heat recovery system designed to retrofit to natural gas compressors. EXPANDER-175 produces benefit for the compressor owner by:

1) generating clean power, 2) reducing fuel-gas consumption, 3) improving compressor operability, and 4) providing the ability to increase gas throughput/production from the compressor.

How it works

Organic Rankine Cycle (ORC) is the base technology of EXPANDER-175. ORC is a process that converts heat to mechanical work, typically shaft horse power, that can be used to generate electricity or drive other equipment. The GNP EXPANDER system recovers waste heat from the reciprocating engine's radiator fluid, exhaust and the compressors lubricating oil.



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Value to Producer

Gross power output from generator	kW	175
Net power output from EXPANDER	kW	115
Fuel gas reduction	GJ/d	20
Increased compressor throughput	mscfd	150

Scope of Supply

The EXPANDER Skid	Included
Air Cooled Condensers (skid mounted)	Included
Exhaust Heat Exchanger	Included
Interconnected pipe	Included
Interconnected pipe racking	Included
Turn key Services	Optional
Field Installation	Optional
Permits	Optional
HAZOP	Optional
Operator training	Optional
Commissioning	Optional
System monitoring and control	Optional

System Features

Area Classification	Class I Zone II
Working fluid	Optimized to heat source
Generator voltage	VAC, per customer spec
Generator frequency	50 Hz or 60 Hz
Generator type	Induction or Synchronous
Expander type	"Oil Free" Twin helical screw
Pressure regulator	ABSA certified
Condensers	Air cooled, 20 TEFC fans
Number of heat sources	1 to 3
Heat sources	Jacket water, lube, exhaust
Control system	Allen Bradley
Valves	Fisher
Pumps	Grundfos
Dimensions	6.5'W x 53'L x 12'H
Transport weight	45,000 lbs

