

PRESSURE REDUCTION GENERATOR SET

Model 4400

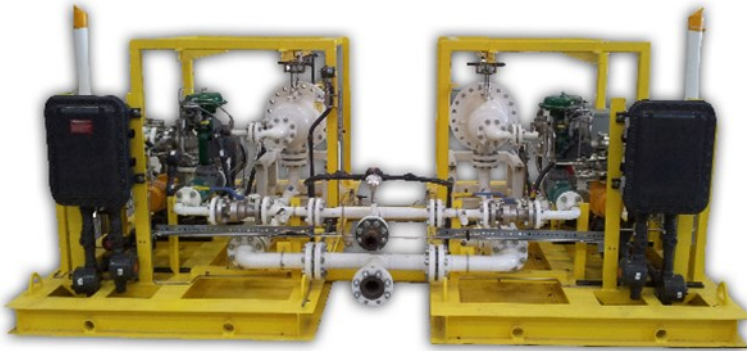


Image shown as 2 units
coupled for redundancy

- High Pressure
- Self-Cleaning
- Planetary Rotor

Power Rating
60 kWe

60 Hz 3600 rpm 480/240 Volts

FEATURES

OPERATION

- Gas pressure driven, non-combustive, and emission free
- Engineered for offshore oil platform power generation
- “Wet” gas acceptable at expander inlet
- Meets offshore duty certification requirements

PLANETARY ROTOR EXPANDER

- Rotary positive displacement
- Self-cleaning, helical 4-rotor design
- High pressure rating of 1,440 psi
- Oil-free rotors for total flow operation
- Oil lube bearings for greater longevity
- Rugged and durable design using solid steel rotors
- Expander housed within certified pressure vessel

GENERATOR

- 3 phase AC synchronous Marathon Electric™
- UL Listed, ISO 9001, Class H insulation w/ tropical coat
- Factory pass along warranty
- Marine duty with stator heater

SINGLE-SOURCE SUPPLIER

- Packaged for “plug and play” installation
- Fully tested prior to delivery
- Final assembly at ISO 9001 facility*

* Certification pending

CONTROL PANEL

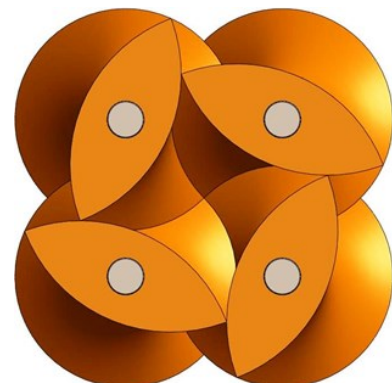
- Automated controls for unmanned operation
- Rockwell Automation /Allen Bradley PLC
- Stand alone power generation with black start capability
- “Bump less” hand-off between paired units
- Touch screen HMI
- Remote monitoring optional

SAFETY FEATURES

- Auto shut down with fast acting isolation valves
- Pressure Safety Valve (PSV)
- Over speed protection

CERTIFICATION

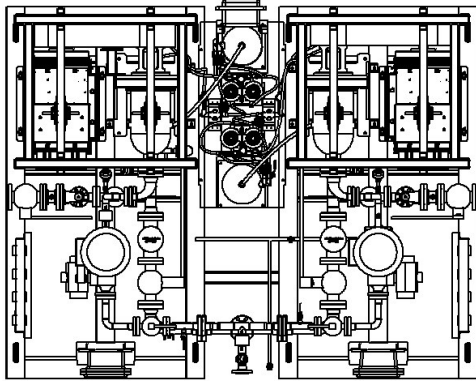
- NEC Class I, Div II hazardous location classification
- 1440 psi, -50 F, U-stamp ASME certification
- Meets API, UL, IEEE Standards
- ISO 12944 protective coating for offshore marine structures



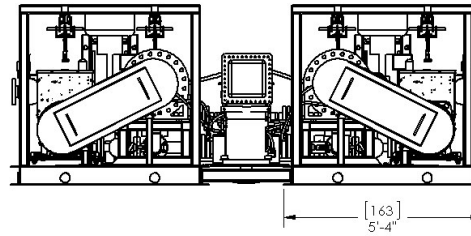
Model 4400

Planetary Rotor Expander

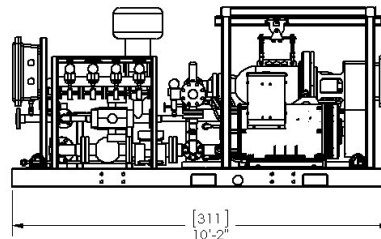
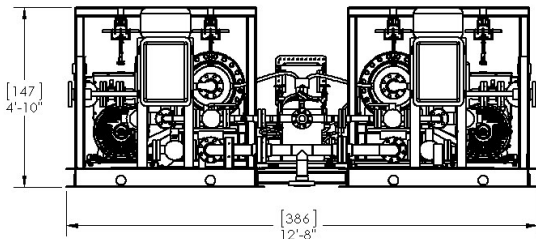
Top View



Front View



Side View



Actual dimensions and weight may differ than those shown. Please contact the manufacturer for up to date specifications.

Product Specifications

Equipment Dimensions (as two units paired)

Length	10 ft, 2 in. (311 cm) Maximum
Width	12 ft, 8 in. (386 cm)
Height	4 ft, 10 in. (147 cm)
Weight	13,000 lb dry (7938 kg)

Performance Characteristics

Electric power (gross)	65 kWe @ 480V / 3 phase / 60Hz
Electric power (net)	50 - 60 kWe*
Ambient temperature	-50° to 130°F (-45° to 54°C)
Power factor	.8 Lagging
Emissions	Zero (closed system)
Noise	78 dBA at 33 ft (10 m)

Design Attributes

Plumbing	1,440 psi, -50F rated
Expander	Planetary 4-rotor (rotary positive displacement)
Generator	Marine Duty, AC Synchronous, 1800 rpm, C1D2, H4 insulation
Pressure vessels	1440 psi, -50F ASME, U stamp
Junction box and conduit	Class I Div II, explosion proof, PVC coated (offshore)
Lubrication	ISO 32 multi-purpose industrial oil
UL components	
Protective relay function	

System Description

Working fluid	Nitrogen, natural gas, air, steam, or any inert gas
PLC Controls	Rockwell Automation / Allen-Bradly
Operation	Fully automated for unattended operation
Remote Monitoring	Web-based gateway (optional)
Manufacture and testing	Factory assembled and tested prior to delivery
Shipping	Single-drop flatbed truck



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