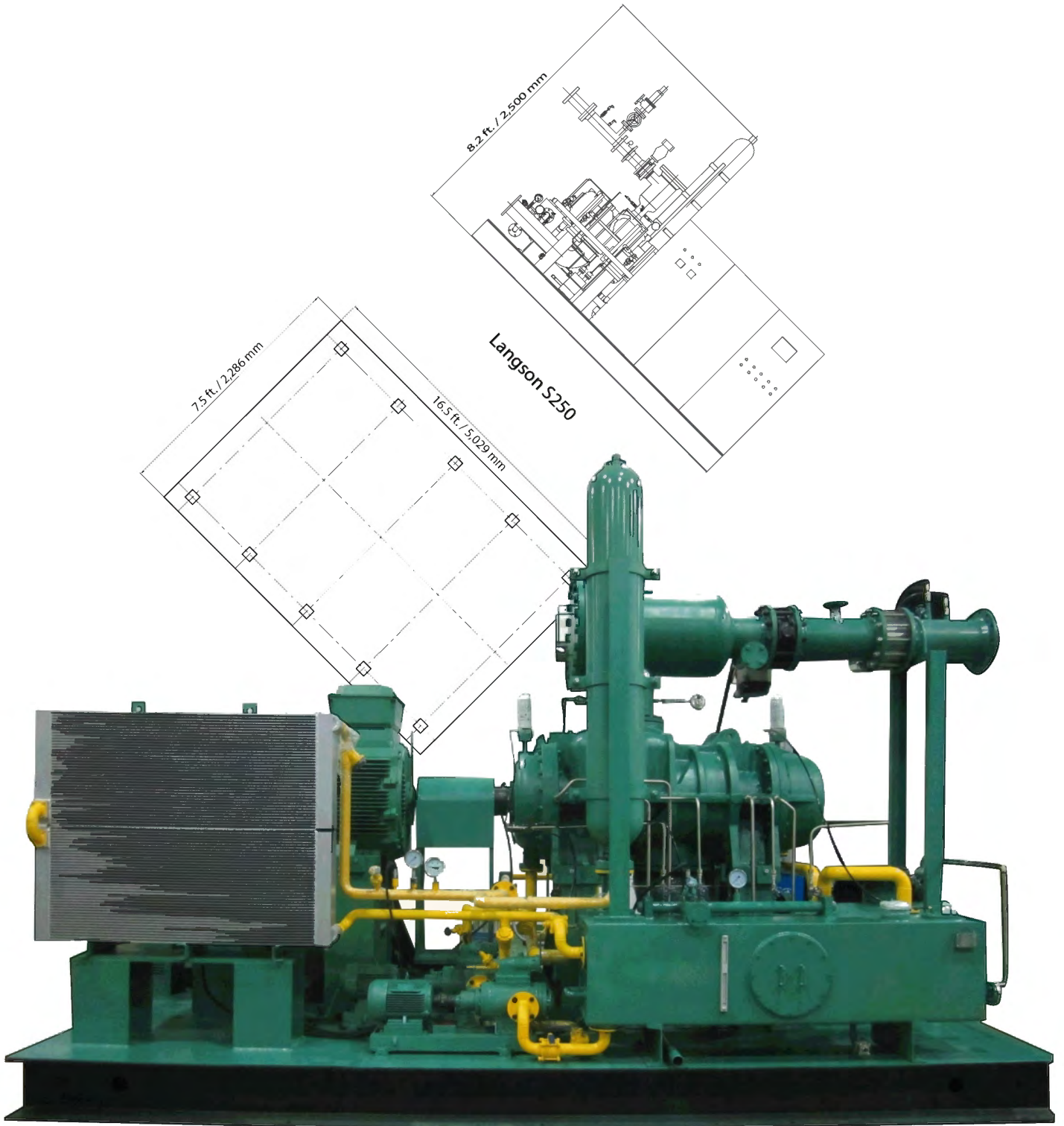


LANGSON S250

Steam Pressure Reduction Generator



LANGSON S250

System Characteristics	
Electric Power at Generator Terminals	up to 250kW (1)
Acceptable Steam	Saturated, Dry, Superheated, Flash, Waste, 2-Phase Fluid
Emissions	Zero
CO2 Mitigated	Saves approx. 1,500 Metric Tons CO2 per year (2)
Maximum Pressure In	450 PSIA (31 BARA)
Minimum Pressure Out	1 PSIA (.07 BARA; 7 kPa)
Maximum Pressure Ratio	30:1
Maximum Temperature	482°F (250°C)
Minimum Temperature	-4 °F (-20°C)
Maximum Steam Flow	100,000 lb/hr (50 tons/hr; 45,359 kg/hr; 45.359 m3/H)
Flow Examples of Saturated Steam In & Out at various Pressure Reduction Ratios (PR) to generate 250 kW	6:1 PR needs 11,000 lbs/hr (5,000 kg/hr) 5:1 PR needs 12,100 lb/hr (5,500 kg/hr) 4:1 PR needs 13,850 lbs/hr (6,300 kg/hr) 3:1 PR needs 17,150 lbs/hr (7,800 kg/hr) 2:1 PR needs 26,650 lbs/hr (12,100 kg/hr)
Sound Level	85 dB @ 3.28 feet (1 meter)
Dimensions	7.5 x 16.5 x 8.2 feet (2.286 x 5.029 x 2.5 meters)
Weight	17,650 lbs (8,000 kilograms)
Design Life	20 years
Packaging	Factory assembled, skid mounted
Warranty	18 months from date received or 12 months from date installed whichever occurs first
Conversion System	
Expander Drive	Oil-free helical twin screw expander
Expander Characteristics	Positive Displacement
Rotor Material	Steel or Stainless Steel
Case Material	Steel or Stainless Steel
Connection to Generator	Direct Drive
3 Phase Generator	
Manufacturer	Marathon
Type	Induction
Voltage	480V or 400V (others available upon request)
Frequency	60 Hz or 50Hz
Rotational Speed	1800 rpm
Interconnection	
Transient voltage/surge suppression at utility interface	Safety relay
Controls	
Controls	Siemens
Remote monitoring	Will support IP protocol, 3G cellular, satellite communications, wireless internet. Customer to supply computer hardware & connection fees

(1) kW output dependent on site conditions

(2) per www.eia.gov Feb. 22, 2012