

# Generator Gas Dryer II

Water, oil and other contaminants cause corrosion in critical areas of generators, resulting in diminished efficiency and increasing the likelihood of forced outages. Increased dew point levels also detract from generator efficiency by increasing windage losses. E/One's Generator Gas Dryer (GGD II) is a dual-chamber system that continuously dries and recirculates generator cooling gas – even when the generator is on turning gear, which is a critical time to maintain low dew point.

## SPECIFICATIONS

### MEASUREMENT CHARACTERISTICS

<b>Technology Principle</b>	Molecular sieve as a drying medium
<b>Typical Flow Rate</b>	8 – 12 ACFM, Hydrogen
<b>Typical H2 Consumption per Regeneration</b>	360 ft <sup>3</sup> (10 meters <sup>3</sup> ) (Lower hydrogen consumption with Regenex (TM) option)

### ELECTRICAL CHARACTERISTICS

<b>Input Voltage</b>	400/480 VAC Three Phase
<b>Input Frequency</b>	50/60 Hz
<b>Input Power</b>	3,000 Watts
<b>Inrush Current</b>	3.5A

<b>Output, Relays</b>	5A @ 250 VAC 5A @ 30 VDC 100 mA @ 125 VDC Dew Point High, NO and NC Trouble, NO and NC
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<b>Output, Signals</b>	4-20mA current output (self-powered) Input Dew Point Outlet Dew Point
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<b>Area Classification</b>	Class I, Zone 2, Group IIB + H2
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### MECHANICAL CHARACTERISTICS

<b>Ambient Temperature</b>	32 F to 125 F (0 C to 52 C)
<b>Maximum Pressure</b>	100 psi
<b>Overall Dimensions</b>	29.75" w x 83" h x 38" d
<b>Inlet &amp; Outlet Connections</b>	3/4" ANSI Class 150 RF Flanges
<b>Vent Connection</b>	1/2" ANSI Class 150 RF Flange
<b>Alternate Regeneration Connection</b>	1/4" Compression Fitting



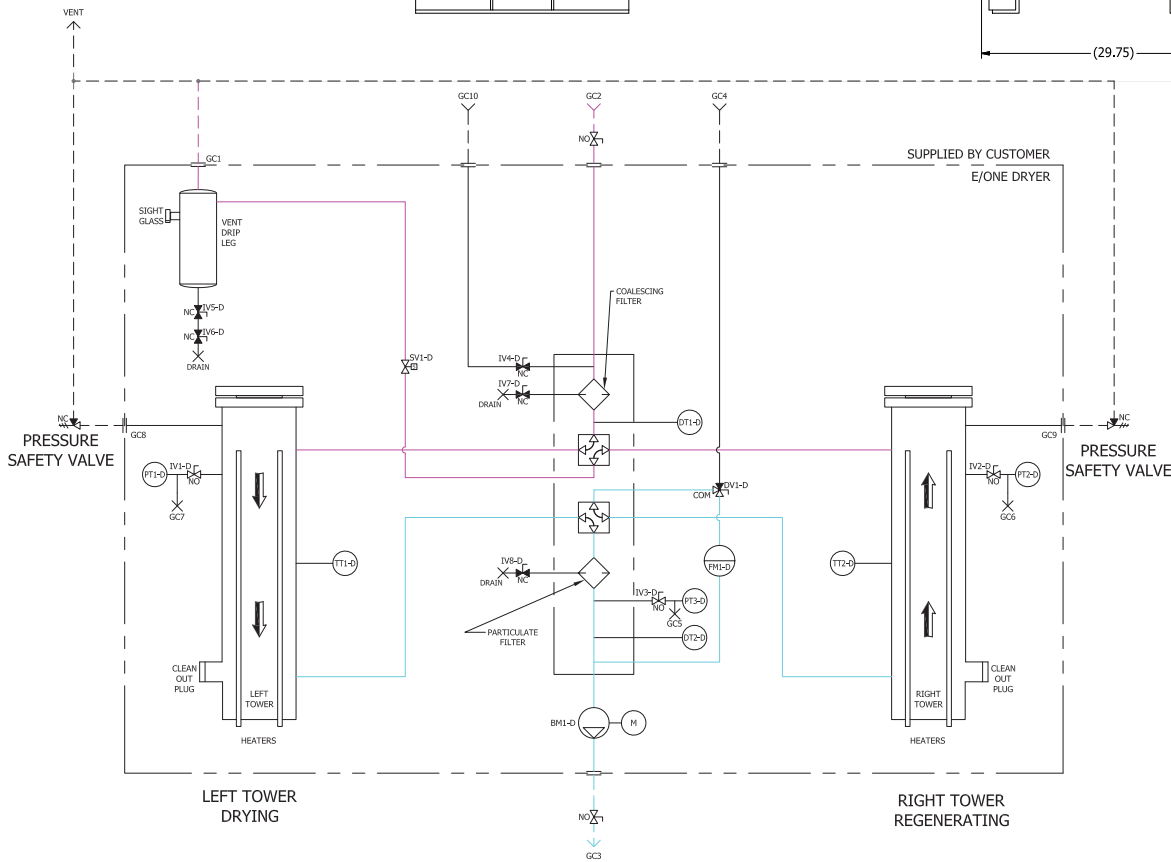
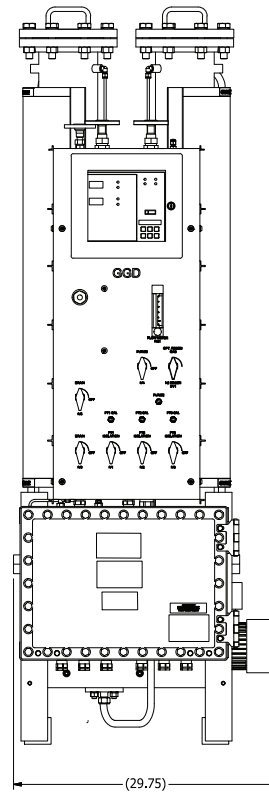
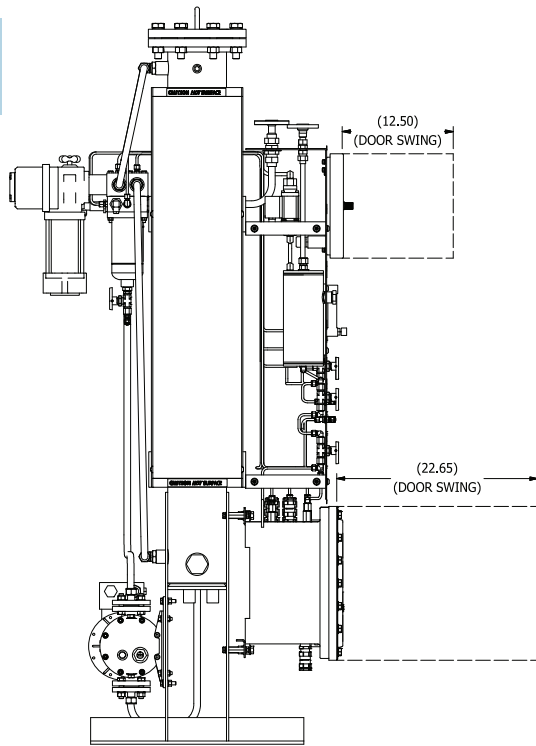
**Column regeneration is automated and takes place based** on programmable inlet and outlet dew point levels. The GGD II has a secondary, programmable time based regeneration feature, allowing you to set maximum times between regeneration (from 10 to 30 days).

Contact E/One to arrange a dew point site-evaluation by our Field Service technicians. We'll sample your hydrogen cooling gas with NIST traceable portable dew point and hydrogen purity analyzers and then issue a report to site engineering regarding our findings.

## FEATURES AND BENEFITS

- Increased generator efficiency and reduced downtime
- Comprehensive water and contaminant removal
- Microprocessor controlled
- Designed for hazardous location operation
- Self-monitored drying process
- Standard electrical actuator
- Compact design great for retrofits (29.75" w X 83" h X 38" d)

# OUTLINE



CONNECTION TABLE		
CONN.	TYPE	DESCRIPTION
GC1	1/2" RF ANSI 150# FLANGE	VENT
GC2	3/4" RF ANSI 150# FLANGE	WET GAS INLET
GC3	3/4" RF ANSI 150# FLANGE	DRY GAS OUTLET
GC4	1/4" COMPRESSION	OPTIONAL REGEN GAS
GC5	1/4" COMPRESSION	PT3 CALIBRATION
GC6	1/4" COMPRESSION	PT2 CALIBRATION
GC7	1/4" COMPRESSION	PT1 CALIBRATION
GC8	1/2" NPT	PSV CONNECTION
GC9	1/2" NPT	PSV CONNECTION
GC10	1/4" COMPRESSION	DRYER PURGE INLET

KEY	
ITEM	DESCRIPTION
PT1-D	PRESSURE TRANSMITTER
PT2-D	PRESSURE TRANSMITTER
PT3-D	PRESSURE TRANSMITTER
FM1-D	FLOWMETER
DT1-D	DEW POINT TRANSMITTER
DT2-D	DEW POINT TRANSMITTER
BM1-D	BLOWER ASSEMBLY W/ MOTOR
TT1-D	DUPLEX RTD PROBE
TT2-D	DUPLEX RTD PROBE

WET GAS      DRY GAS

# P&ID

# CUSTOMER CONNECTIONS



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