Guaranteed biogas chilling & dehydration.

GES Biogas Chilling Systems bring Hyperchill technology to the biogas industry. We bring together the latest technological advances in refrigeration, heat transfer and condensate separation to chill and dehydrate biogas with maximum efficiency at minimum operating cost. Welcome to the cutting edge of biogas treatment technology.

**Maximum Performance — Minimum Operating Cost**

Our custom designed GES Biogas Chilling & Dehydration Systems are the result of more than 40 years of engineering research and development in the field of high quality gas treatment.

- Precision Water Chillers
- Tube & Shell Heat Exchangers
- 3 Stage Condensate Separators
- Coalescing & Particulate Filters

Choose from our wide range of system components or have us tailor a comprehensive skid mounted chilling or dehydration system specifically for your application.

**How it works:** The gas flows through the stainless steel tubes of the water to gas heat exchanger (A) where it is cooled by the water. The water is in turn cooled by the precision water chiller (B), continuously circulating in a closed loop. The gas then flows through a three stage filter separator (C) where bulk liquids are separated from the gas using centrifugal force & directional change, and aerosols are separated using a coalescing filter element. The condensed liquids are removed from the system via an automatic condensate drain (D). For dehydration, a second gas to gas heat exchanger may added (E). It acts as a pre-cooler & re-heater, pre-cooling the incoming gas to reduce demand on the water chiller, and re-heating the outgoing gas to reduce it’s relative humidity.

**Precision Water Chillers:**
- Steady & reliable operation in any ambient conditions
- Accurate & adjustable temperature control
- Efficient & environmentally friendly R407C refrigerant
- Multiple quiet & reliable compliant scroll refrigerant compressors
- Multiple independent refrigeration circuits with automatic rotation
- Easy to use programmable microprocessor controls & LCD displays
- Easy maintenance access & removable condenser pre filter
- Compact footprint & low weight design for easy installation
- Extensive factory testing backed by multiple safety devices

**Shell & Tube Heat Exchangers:**
- Efficient heat exchange for low approach temperatures
- High flow design for minimum pressure drop
- Carbon or stainless steel tubes and housings
- Sizes, pressures & temperature ratings to fit any application

**Condensate Separators:**
- 3 Stage Design — centrifugal, directional change & coalescing separation
- High moisture removal efficiency & low pressure drop—even at high flows
- Differential pressure gauges & stainless steel condensate drains (optional)
- Sizes, pressures, and flow configurations to fit any application

**Who we are:** Green Energy Solutions (GES) is a business unit of Parker Hannifin that specializes in building reliable, cost effective, and guaranteed solutions for the treatment of biogas.

Siloxane Removal Systems
Biogas Filters
Instrument Air Packages