

WHAT IS PROPANE AIR?

Propane-air, also called LPG-Air or SNG, is essentially synthetic natural gas that is formed by mixing vaporized propane or LPG with air. Once mixed it forms a homogeneous mixture that can be used as a direct replacement for natural gas in combustion applications. The only restrictions are those processes using natural gas that are intolerant of any nitrogen such as hydrogen atmosphere generators.

Propane Air Mixing Systems - Industrial Back-up

Companies in most industries require a back-up system for their primary energy source when there is a risk of energy interruption or when there is a significant economic benefit. This holds true especially for companies using natural gas that have loads greater than 2 million Btu/Hour.

Many industrial processes operate continuously. Fuel interruption halts mass production and as a result major economic losses are incurred. In some cases, as it is in the Glass Industry, fuel interruptions are devastating. Fuel shortage not only results in production losses, there are also hundreds of thousands of dollars lost in capital investments. Covering this risk with a back-up fuel system is a requirement.

The goal for companies in all industries is to be in a competitive position. Seeking a reliable and environmentally friendly energy source that will also offer the lowest possible manufacturing costs can put them ahead of the game. Propane-air back-up systems allow companies to benefit from interruptible Natural Gas rates while relying on environmentally clean fuel sources.

Propane-Air standby systems allow natural gas users the ability to have live back-up when ever required. Because propane air is a "synthetic natural gas" (SNG), it can be used as a direct substitute for natural gas. Unlike diesel, fuel oil or propane, SNG does not require additional gas trains, piping, regulators, or special fuel delivery systems inside the factory. The propane air mixture is simply connected to the natural gas piping just after the metering station (and pressure reducing station) but before entering the building(s). These systems can be placed in live back-up so that they take over upon falling pressure, or they can be turned on manually. In either the case it is akin to having an electrical generator.

There is no size limitation for these systems but generally speaking it is not economically feasible for loads less than 1-2 million Btu/hr.

Utility Peak Shaving with Propane-Air



The Content of this document is protected by copyright.

The Content of this document is owned by Algas SDI and the compilation of Content of this document is owned by Algas SDI.

A leading source of energy in the world today is Natural Gas. Expanding economies and the deployment of gas turbine electricity generation facilities increase the demand for natural gas, resulting in lower pipeline and distribution pressures and the need for additional investment in pipelines, distribution grids, and operating wells. High winter demands also put a strain on natural gas distribution. Natural Gas LDC's have a limited number of options available to help balance and minimize the effects of these constraints - the use of storage buffers and peak shaving systems are two primary examples.

When it comes to peak shaving there are two choices - LNG and Propane-Air. A typical propane-air peak shaving plant consists of LPG storage facilities, truck unloading station, transfer pumps, propane vaporizers, air compressors, propane-air mixer, gas flow rate and calorific value measurement device, and system controls. The benefits of propane-air peak shaving over using LNG are significantly lower capital investment, ease of fuel storage and lower maintenance costs. The drawback to using propane-air is the higher cost of fuel and the need for compressed air when mixing. In most cases the differential in initial capital investment is so extreme that propane-air peak shaving systems are favored.



The Content of this document is protected by copyright.

The Content of this document is owned by Algas SDI and the compilation of Content of this document is owned by Algas SDI.