

Competitive Advantages



THE GASTECHNO® MICRO- OR MINI-SYSTEMS CAN ECONOMICALLY PRODUCE ALCOHOLS, ALDEHYDES, ETHERS, KETONES, DIESEL FUEL, JET FUEL AND GASOLINE.



IN ADDITION, GASTECHNO® IS ABLE TO DELIVER A LOW-COST OXYGEN AND HYDROGEN COMPRESSOR SYSTEM AND ALSO OFFERS A DUAL-FUEL AND QUAD-FUEL GENERATOR POWER TECHNOLOGY WORLDWIDE



GASTECHNO® MINI-GTL® IS THE LOWEST-COST SYSTEM THAT CAN CONVERT METHANE, BIOGAS, BIOMETHANE, LANDFILL GAS, NATURAL GAS, ASSOCIATED GAS AND COAL MINE METHANE INTO FUELS AND CHEMICALS.



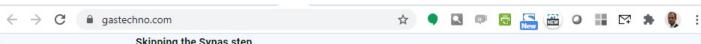
GASTECHNO® MINI-GTL® IS THE ONLY TECHNOLOGY CAPABLE OF UTILIZING COMPRESSED AIR RATHER THAN A VPSA, PSA OR LOX OXYGEN SYSTEM FOR OFFSHORE OR REMOTE GAS FIELD OPERATIONS.



IT IS THE ONLY METHANE CONVERSION SYSTEM THAT IS THIRD-PARTY, INDEPENDENTLY VALIDATED TO OPERATE INSIDE A 45-FOOT SHIPPING CONTAINER.

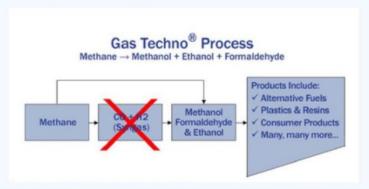


GASTECHNOPLANTS ARE SCALABLE AND TRANSPORTABLE WITH THE ABILITY TO PROFITABLY OPERATE AT SMALL VOLUMES. ALLOWING EVEN MODEST POINT SOURCES TO MEET CARBON REDUCTION GOALS.



Skipping the Synas step

Traditionally, natural gas is reformed into syngas, and then further converted into methanol and other liquid chemicals or fuels. The process is complex and requires highmaintenance catalyhsts and massive economies of scale to be profitable. Most natural gas sources are simply too small to apply syngas technologies. For these applications the GasTechno process is the only option.



The GasTechno process eliminates the syngas step and associated catalyst by converting methane directly into methanol via a patented direct homogenous partial oxidation process. The GasTechno system featues an energy-neutral recycle loop where unreacted methane is scrubbed and recycled until the desired conversion is achieved. The carbon and thermal efficiencies of the resulting process are comparable to syngasbased technologies.

Subject to certain assumptions, the process generates 6.2 gallons methanol, 5.1 gallons formalin and 0.4 gallons ethanol per 1 mscf of methane feedstock. These valuable commodities are easily collected and marketed, mitigating the risk associated with volatile natural gas prices.

Mini-GTL IN A BOX®

Gas processing eguipment



METHANOL IN A BOX®

Gas processing equipment

