



PROJECT SUMMARY

Fagen, Inc. and Vogelbusch have recently partnered to provide full EPC Grain Neutral Spirits Alcohol Additions. This unique system allows our ethanol clients to diversify by adding additional product lines from USP to beverage grade alcohol.

GNS - "Grain Neutral Spirit"

The GNS specification surpasses the requirements for "Alcohol" in the 23rd edition of the U.S. Pharmacopeia (USP). It also surpasses the requirements for "ethyl alcohol" of the Food Chemical Codes (F.C.C. IV).

PROVEN TECHNOLOGY

Raw 190 proof alcohol is drawn from the existing fuel ethanol facility. Water is added to the 190 proof alcohol then processed in the Vogelbusch three column system to remove the impurities. An alcohol stream with impurities and water are returned to the fuel ethanol process. Hydrous alcohol is pumped to one of two tank farm day tanks and tested before

the product is pumped to the final storage tanks.

Steam, cooling water, RO/Fresh water, instrument air and electricity are required from the existing fuel ethanol facility. Final GNS product storage and handling system must also be added. These utility and storage needs may require modifications or expansion to the existing systems.

To date, Vogelbusch has over 30 operational units world-wide.

APPLICATIONS

Neutral alcohol is suitable for a variety of applications:

- Neutral alcohol is the base for flavored alcohol beverages, vinegar, and a wide range of chemical and pharmaceutical products and processes.
- Extra neutral alcohol (ENA) has the highest purity and defined taste profile, it is used in the production of alcoholic beverages such as vodka.
- Dehydrated neutral alcohol, which is practically water free, has applications in chemicals, pharmaceuticals and cosmetics.

PARTNERSHIP

Our partnership brings you the alcohol technology and

experience to design and install processes for a wide range of applications and product specifications. They are individually tailored to comply with pharmacopoeia or producer specifications and with national and international ethyl alcohol standards such as EN, GOST, JAAS and many others.









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