



Nikkiso Cosmodyne Commissions TGNO-1000 Developed for Float Glass Applications

FOR IMMEDIATE RELEASE

Temecula, CA, September 15, 2021 - Nikkiso Cryogenic Industries' Clean Energy & Industrial Gases Group (Group), a subsidiary of Nikkiso Co., Ltd (Japan), is pleased to announce Nikkiso Cosmodyne recently commissioned its TGNO-1000 gaseous oxygen and nitrogen plant. The new plant targets float glass manufacturing and was sold to an industrial gases company.

The Nikkiso Cosmodyne TGNO is a cryogenic oxygen and nitrogen generator designed to produce three gaseous product streams: medium and high-pressure nitrogen gas and oxygen gas. The high-pressure nitrogen comes directly off the nitrogen column at approximately 8.5 bar(g). The medium pressure nitrogen stream comes from the oxygen column overhead and is boosted by a waste stream expander to approximately 2.3 bar(g). The gaseous oxygen comes directly off the oxygen column which runs at an elevated pressure of 2.3 bar(g). All this is accomplished at a low specific power of 0.27 KW/Nm³

The TGNO-1000 was configured with mostly preexisting components to meet the developmental needs of this multi-product plant. This allowed them to meet the stringent goals of their industrial gas customer, who is selling the molecules to the float glass customer. The plant also operates without an attendant, so can handle fluctuations in product demand without human intervention.

The prefabricated TGNO is delivered in pre-piped, pre-wired, easy-to-install modular sections. The chiller, adsorber beds, switching valves and turboexpander are mounted in a single skid, minimizing field work. The control room module houses the motor control center and required analyzers.

"This is Cosmodyne's most recent effort to supply cryogenic systems and plants which allows our industrial gas customers to develop their market and compete effectively, according to George Pappagelis, President of Cosmodyne Process Systems. "The TGNO-1000 was a collaborative effort among our operations in the US (Escondido, Seal Beach and Temecula) and India."

Nikkiso Cosmodyne has extensive experience with liquid merchant plants as well as on-site gas plants like the TGNO-1000.

ABOUT CRYOGENIC INDUSTRIES

Cryogenic Industries, Inc. (now a member of Nikkiso Co., Ltd.) member companies manufacture engineered cryogenic gas processing equipment and small-scale process plants for the liquefied natural gas (LNG), well services and industrial gas industries. Founded over 50 years ago, Cryogenic Industries is the parent company of ACD, Cosmodyne and Cryoquip and a commonly controlled group of approximately 20 operating entities.

###

For more information, please visit www.nikkisoCEIG.com and www.nikkiso.com.

MEDIA CONTACT:

Anna Quigley

+1.951.383.3314

aquigley@cryoind.com