

**Plant #  
600**



## Cryogenic Nitrogen Generation Plant - 6600

**Capacity:** 6600 Nm<sup>3</sup>/hr (3300 Nm<sup>3</sup>/hr per line)

**Products:** High Purity Nitrogen

### Major Equipment

Air Filter  
Ingersoll-Rand Centrifugal Main Air Compressors  
C-101 / C-102 Intercooler/Aftercooler  
Water Knockout Drums  
Chiller Module  
Cooling Water Pump Skid  
Cooling Towers  
Adsorber Vessels  
Seal Gas System  
Main Heat Exchanger  
Turboexpander Assembly  
Coldbox Assembly Module  
N<sub>2</sub> Column and Condenser/Reboiler  
Cryogenic Tanks  
Ambient Vaporizers  
Nitrogen Generator TGN-3700

### Brief Plant Description

Unused, never installed semi-automated cryogenic nitrogen generation plant, designed for ultra-high purity gaseous and liquid nitrogen. Built in 2024. Consisting of (2) TGN-3700 Nitrogen Generators, each train produce 3,332 Nm<sup>3</sup>/h of gaseous nitrogen rated 115 PSIG at 0°C. Nitrogen Generators & Cold Box Designed by Cosmodyne. Plant delivers nitrogen with extremely low impurity levels: oxygen at a maximum of 3 ppm, moisture at 3 ppm, total hydrocarbons (THC) at 1 ppm, carbon dioxide at 0.5 ppm, carbon monoxide under 1.5 ppm (with incoming air CO < 450 ppb), and hydrogen below 1.0 ppm (with incoming air H<sub>2</sub> < 280 ppb). Each plant consumes 1,700 kW of connected electrical power (1,380 kW during operation). Cooling Water System utilizes 715 GPM of cooling water with an 8°C temperature rise and 60 Nm<sup>3</sup>/h of instrument air at 80 PSIG. The plant includes a backup provision of 207 Nm<sup>3</sup>/h of liquid nitrogen supply during turboexpander downtime.

**For more  
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