

Refining Gas Applications Guide

(Hydrogen H₂, Nitrogen N₂, Oxygen O₂, Carbon Dioxide CO₂)

YIGAS INTERNATIONAL LIMITED

1. Overview

Refineries use gases for hydroprocessing, hydrogenation and purge operations. YIGAS supplies H₂, N₂, O₂ and CO₂ to support refining efficiency and emissions control.

2. Technical Specifications

Gas	Purity Level	Typical Phase	Temperature Range	Common Pressure
H ₂	≥99.999%	Gas	-253 °C	10—300 bar
N ₂	≥99.999%	Gas	-196 °C	5—200 bar
O ₂	≥99.9%	Liquid / Gas	-183 °C	5—200 bar
CO ₂	≥99.9%	Liquid / Gas	-78.5 °C	10—60 bar

3. Industrial Standards

All gases comply with:

- API 520/521 – Process safety and gas handling
- ISO 14687 – Hydrogen purity standards
- EIGA Doc 110/18 – Gas use in refining processes

4. Applications

- H₂: Hydrodesulfurization and hydrocracking
- N₂: Purging reactors and pipelines
- O₂: Combustion control and process oxidation
- CO₂: Solvent recovery and emission management

5. Packaging & Supply

Cylinder • Tube Trailer • Bulk • On-site Generation

6. Contact Information

www.yigasgroup.com

Address: Guangdong, China

© 2025 YIGAS INTERNATIONAL LIMITED – Industrial & Specialty Gas Solutions

This document provides reference specifications for YIGAS refining gases. Customized supply and technical support are available upon request.