

CRYOGAS INDUSTRIES

Welcome to the world of Cryogenics !!!



Cryogas Industries



“CRYOGAS INDUSTRIES” was founded in the year 1996 in India. The Group has diverse activities in the fields of Cryogenic Equipment and handling of Cryogenic Liquids & Gases.

Different Flagship Companies in the Group Carry out Design, Manufacture, Supply and Turnkey Installations of Cryogenic Equipment to handle Cryogenic Liquids & Gases. The solutions apply to the length and width of several industries.



Cryogas Industries

Our Timelines

1996 Cryolin India

1998 IWI Cryogenic Vaporization Systems (I) Pvt. Ltd.

2004 Ultra Pure Gases (I) Private Limited

2009 Cryogas Equipment Private Limited - SEZ Unit

2012 LNG Express India Private Limited

2014 Cryogas Equipment Private Limited - DTA Unit

2016 Cryogas Equipment Private Limited - DTA Unit - Central Gas Systems Division

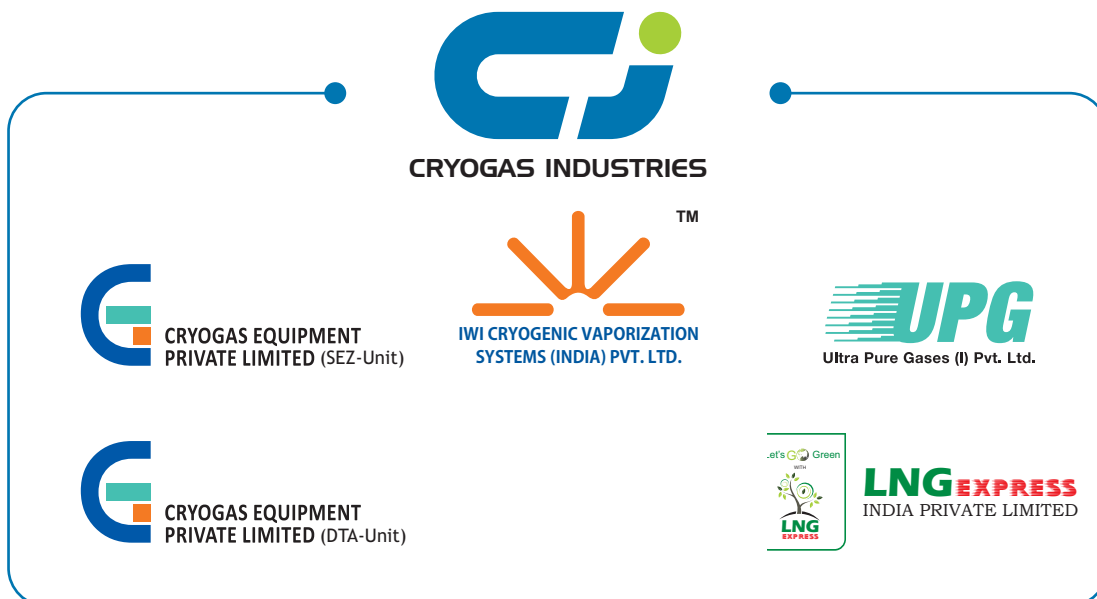
Future

Cryogas is investing in several futuristic projects like super conductivity and its applications, Particle Science, Fuel Conversion Projects & LNG applications at customers' sites.

Aims and Ambitions

Cryogas Group aims at offering complete spectrum of products and services to its customers around the world. The Group has ambitious plans of expansion yet focused to core competence.

Brand new fully equipped Design to Manufacturing facility is now operational to produce Cryogenic Tanks & Tankers, Micro Bulk, Portable Cryogenic Containers, High Pressure Gas Tonners.





**CRYOGAS EQUIPMENT
PRIVATE LIMITED**

SEZ Unit
World Wide Exports



Cryogas Equipment Private Limited - Special Economic Zone



CRYOGAS EQUIPMENT PRIVATE LIMITED, an **ISO 9001** company established in the Special Economic Zone in 2009-10, in the most advanced Cryogenic Engineering city of Vadodara, caters to the requirements of customers around the globe with world class cryogenic turnkey solutions and installations, vacuum insulated cryogenic tanks & tankers, vacuum insulated piping, skidded mobile vaporizers and vaporizers with combined pumping systems, LNG Turnkey Installation & LNG Supply Chain Management & LNG Applications.



Products

- Cryogenic Storage & Transport Tanks, ISO TANKS
- Ambient Atmospheric Vaporizers - LP, HP, HF & Mobile
- Turnkey Cryogenic Back-Up Installations, Gas Cylinder Filling Stations
- Multi Layer Super Insulated Vacuum Pipe Line and Liquid Filling Stations
- Liquid Gas Pack (LGP) - Portable Cryogenic Micro-bulk Cylinders
- Heated & Powered Vaporizers (Cryonorm BV Design, a 50:50 JV Company)
- LNG Fuel Tanks for Automobile Vehicles
- Micro Bulk Solutions for IG & LNG Value Chain for Last Mile Connectivity.
- LNG/LCNG/R-LNG/LNG-C & Auto - LNG Systems & Solutions.



ATMOSPHERIC VAPORIZERS



MOBILE VAPORIZERS FOR PURGING APPLICATION



COMBINED PUMP & VAPORIZER SKID FOR HIGH PRESSURE PURGING & TESTING



STEAM HEATED WATER BATH VAPORIZER



ISO CONTAINERS FOR LOX, LIN, LAR, LNG



CRYOGENIC TURNKEY INSTALLATION
LOX, LIN, LAR, LNG, LCO2, EPC



**CRYOGAS EQUIPMENT
PRIVATE LIMITED**

DTA Unit

World Class Cryogenic Tanks



Cryogas Equipment Private Limited - Domestic Unit



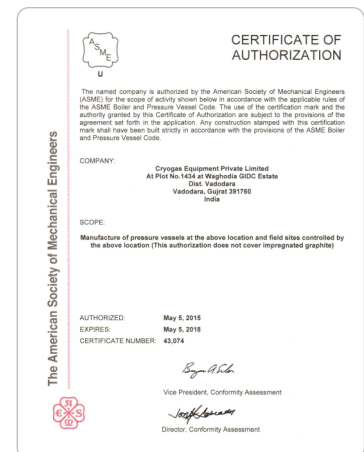
CRYOGAS EQUIPMENT PRIVATE LIMITED, also offers world class Vacuum Insulated Cryogenic Storage & Transport Tanks designed & built to all major International Design Codes, like EN, PED, ASME (U-Stamped), ISO, CGA

Products (2 Bar to 37 Bar)

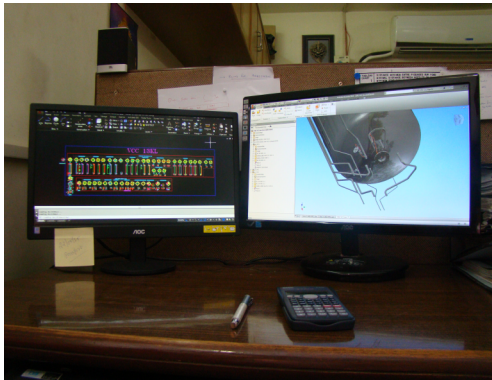
- Vertical & Horizontal Tanks : VCC Range from 1 KL to 250 KL
Vertical Thermosiphon Tanks : VTH Range from 6 KL to 100 KL
- Fix Chassis Transport Tankers : CTR Range from 3 KL to 18 KL
- Running Gear Mounted Transport Trailers :
STR Range from 18 KL to 55 KL (3 to 7 Bar)
- Portable Micro-bulk Tanks 50 - 2000 Lits. (17/24/34 Bar)
- Fan Forced vaporizers



'U' Stamp Audit



**SUPER INSULATED
STORAGE TANKS**



'3D' MODELING



FULLY AUTOMATED CAMERA MONITORED SUBMERGED ARC WELDING SYSTEM



COLD STRETCH OPERATION UNDER
PROGRESS FOR THE INNER VESSEL



HELIUM LEAK TESTING IN OPERATION



SHOT BLASTING BOOTH



PAINT BOOTH FOR FINAL PAINTING



**CRYOGAS EQUIPMENT
PRIVATE LIMITED**

DTA Unit
World Class Cryolines

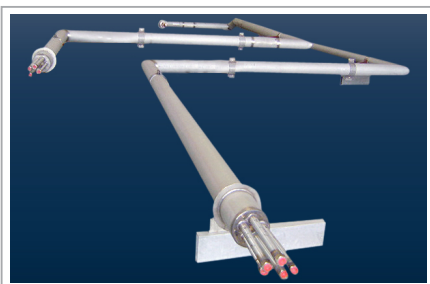


Cryogas Equipment Private Limited - Domestic Unit



Super Insulated Vacuum Pipe Line (SIVL)

"CRYOGAS EQUIPMENT PVT. LTD." as manufacturer of **SUPER INSULATED VACUUM LINES** of international quality, caters to various large and small scale organizations since 2007. We design and manufacture "Made to Measure" Vacuum Insulated Piping to suit any application and in standard sizes from ½" to 8" internal pipe size and available in either bayonet or field weld joints for Spices Grinding, Food Freezing, Pharma Application, Metal Processing Industries and also for Space Research, R&D Activities.



MULTI PROCESS CRYOLINES



WELD END TYPE SUPER INSULATED VACUUM LINE



**EPC INSTALLATION OF MULTI PROCESS
CRYOLINES OF ITER - TOKAMAK**



FLEXIBLE VACUUM JACKETED HOSES



AUTO WINDING MLI ON MICRO BULK CRYOGENIC CONTAINERS



LIQUID GAS PACK
(PORTABLE CRYOGENIC CONTAINER)



MULTILAYER INSULATION LNG TANKER
WINDING IN PROCESS



INNER VESSEL MULTILAYER WINDING WITH
ALUMINIUM FOIL & IMPORTED GLASS PAPER



LNG RE-GAS INSTALLATION
TURNKEY PROJECT - SALE



LNG RE - GAS INSTALLATION
EPC PROJECT - BOOM



**CRYOGAS EQUIPMENT
PRIVATE LIMITED**

**DTA Unit
Central Gas Systems**



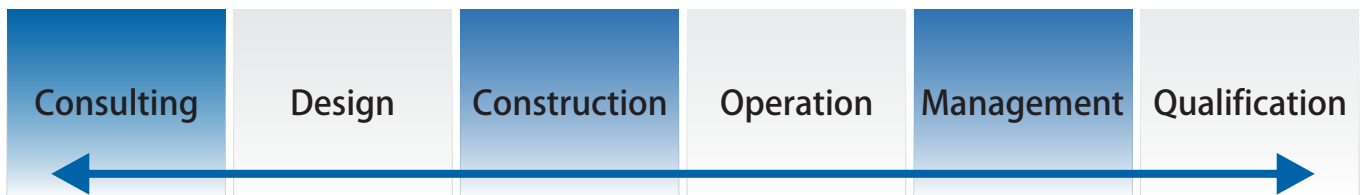
Cryogas Equipment Private Limited - Central Gas Systems Division



CRYOGAS provides "State of Art" Central Gas Systems, for various applications from - Design to EPC, till all validation stages.



Facility Engineering - Facility Management - Automation & Engineering.



- Gas Cabinets, BSGS, VMB, VMP & Supply Panel.
- Blender, Gas Bubblers, Auto Cross Over Systems
- Chemical Delivery Systems
- PLC & SCADA Systems
- Supply of CORT Gases.
- TGM & Turnkey Solutions
- Safety Audits.
- Gas Storage, Purification & Distribution Systems



GAS CABINET & BSGS



CLASS 100 CLEAN ROOM FOR
PANEL FABRICATION



AUTOMATION SYSTEM



WALL MANIFOLD BOX & PANELS



ULTRA HIGH PURE REGULATORS & VALVES



GAS SUPPLY PANELS

Markets Served :

Our combined engineering and manufacturing know-how sets us apart from traditional design or contract manufacturing firms. We extend this experience into demanding markets around the globe.

Technical Partners for INDIA & MIDDLE EAST

- Microelectronics
- Life Science
- Commercial
- Aerospace
- Medical
- Industrial

Deep roots in our core industries give us the strength and reach to be successful for your Product Development & Manufacture.

Our expertise includes development, prototyping, design-for-manufacture, systems integration, supply chain management, fabrication, lead-time and cost reduction, product extension, and end-of-life planning

Your challenges + CollabraTech Solutions = Consistent products that exceed expectations

We help with

- Technology Development
- Product Design
- Lean Manufacturing Processes
- High Quality, Defect-Free Products
- Time to Market

By Providing Integrated Operation

- Engineering
- Materials Management
- Quality Assurance
- Production
- Project Management

Using Available Tools

- Supply Chain Management
- All Major CAD Platforms
- Good Manufacturing Practices
- ISO Certified Quality Systems
- Enterprise Resource Planning Systems



Total Gas Management Systems

11



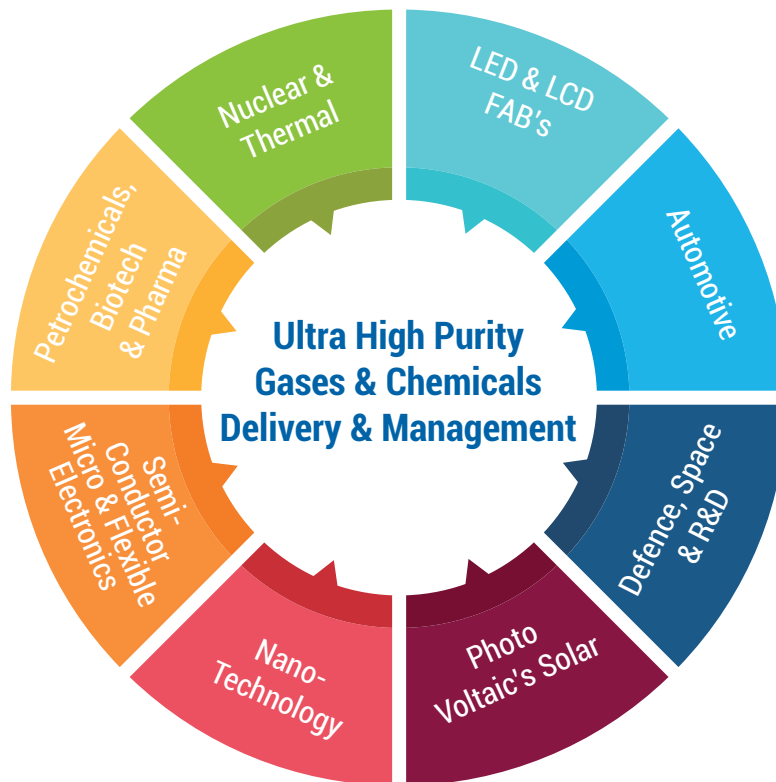
ASU PLANT



CORT GAS SUPPLY



TUBE TRAILERS



CRYOGENIC STORAGE



GAS DISTRIBUTION SYSTEMS



IWI Cryogenic Vaporization Systems (I) Pvt. Ltd.



“IWI CRYOGENIC VAPORIZATION SYSTEMS (INDIA) PVT. LTD.” was founded in 1998 to provide world class solution in Cryogenic and gases industry in Global market. IWI, is a specialized cryogenic equipment manufacturing company catering to cryogenic and gas industries with wide range of products.

Products

- Ambient low and High pressure vaporizers
- Complete Cylinder Filling Stations (CFS) [Manual, Semi Auto & Fully Automated]

Apart from this, the company also undertake complete turnkey projects as per the clients' specific requirements. Logistic Division of IWI offers transportation of Cryo liquids within india and also export to near by countries.



Purging Activities

IWI Cryogenic is also taking up Turnkey Pipeline Purging Projects.



Highlights

- Supply of LIN, LAR, LOX
- Adherence to all Safety Norms
- Commissioning
- Installation of Required Equipment on Rental Basis.
- Decommissioning of System
- Operation System with Temperature Control and Alarm System



Achievements

- Reliability of System
- Piston Effect in the Purging Completion
- Speed of Operation with Safety
- In / Out Time Projection Completion



TURNKEY VAPORIZATION INSTALLATION



CRYOGENIC TURNKEY INSTALLATION,
LP & HP LOX TURNKEY INSTALLATION



ON SITE PURGING AT LNG TERMINAL



PIGGING PROJECT &
PIG LAUNCHING STATION



SKID BASED VAPORIZATION SYSTEMS



GROUND MOUNTED CYLINDER FILLING
MANIFOLD & CONTROL PANEL



Ultra Pure Gases (I) Pvt. Ltd.



Ultra Pure Gases (I) Pvt. Ltd.



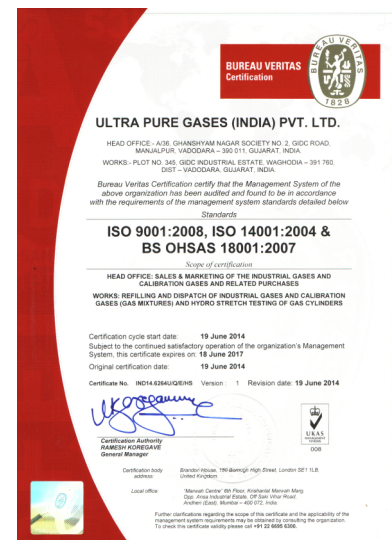
ULTRA PURE GASES (I) PVT LTD is an ISO 9001:2008, ISO 14001:2004 and OJHAS 18001:2007 Company, manufacturing and supplying various gases for different applications, especially **Argon Gas, Nitrogen Gas, Sulphur Hexafluoride (Sf6) High Pure Hydrogen, Helium and Calibration Gases / Speciality Gases** to meet customers' specific requirements.

We are mainly focused in **Speciality Gases, Calibration Gases, Gas Mixtures** to substitute imports in the industry segment of Refineries, Petrochemicals, Chemicals laser, Solar Fab, R&D and Laboratories applications. Our Calibration Gases are renowned for Cement, Steel, Power, lighting industries, medical and environmental applications.



Products

- Calibration Gases
- Speciality Gases
- Semiconductor & Electronic Gases
- Sulphur Hexafluoride
- Hydrogen Skid & High Pure Hydrogen
- Liquid Blends
- Laser Mixtures
- Medical Mixtures
- CORT Gases & Total Gas Supply Management





HYDROGEN BANKS WITH
DIFFERENT CAPACITIES



MULTIPLE DELIVERY OPTIONS MADE
EASY AND COMFORTABLE WITH PALLETS



ANALYTICAL LABORATORY, CG &
HORIBA ANALYZERS



CANISTER FILLING STATION



AUTO BLENDING SYSTEM FOR ARGON
& ARGON MIX



'RECIPE' BASED FULLY AUTOMATED TOUCH SCREEN
OPERATED CALIBRATION GAS BLEND STATION



LNG EXPRESS
INDIA PRIVATE LIMITED

Natural Gas Delivered at Your Door Step

LNG Express India Private Limited

LNG EXPRESS

- LNG Express supplies Natural Gas to off - Pipe Line Consumers.
- LNG Express brings Natural gas in different packages at the door step of customers.
- LNG Express has PNGRB - NOC for 8 Mega district to supply sale Natural Gas using LNG Route.

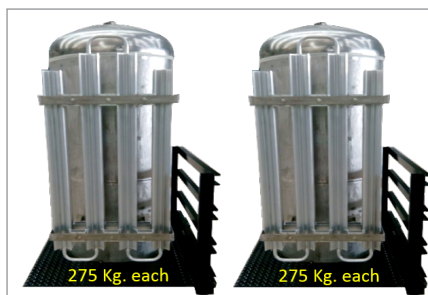
Three Types of LNG - CNG Supply Models.

- LNG Storage & Re-Gasification System installed at sites
- LNG / LCNG Retail Outlet for Automobile Fueling
- LNG Based Hub-n-Spoke LNG Stations

Located strategically to cater to number of Industrial & Commercial Consumers with the help of Integrated Supply Chain Network.



AUTO FILLING MICRO BULK TANKS



PMT-700 PORTABLE CONTAINER LOX,
LIN, LAR, LNC, LCO2 - 17,25,37 BAR



PALLET MOUNTED TANKS FOR
MULTIPLE DELIVERIES

❑ LNG Supply Chain Management



LOADING AT LNG TERMINAL



UNLOADING AT LNG EXPRESS STATION



QUICK CONNECT AT CONSUMER SITE
PEACE OF MIND DELIVERED AT DOOR STEP



CNG FILLING AT LNG EXPRESS STATION



SUMITOMO - JAPAN



Strategic Partnership between Sumitomo - A Specialist Company in Cryocoolers & Compressor and Cryogas, offer portable liquefaction plants. Also available a range of SHI Products with service & Spare parts facility.

Products

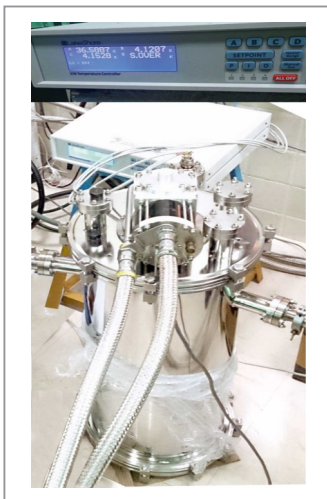
- 4K CCR • Portable Helium Liquefier • Gas Cooling Systems
- 10K CCR • Portable Nitrogen Liquefier • Ultra High Vacuum Systems
- Cryogen Free Superconducting Systems

CRYOCOOLERS

- SRDK Series Cryocoolers
- SRP Pules Tube
- GM - JT Series

COMPRESSOR

- Selection from water-cooled & air-cooled
- Selection of air-cooled compressor between indoor-use & outdoor-use



4.2 K CLOSED CYCLE REFRIGERATOR - ITER



HELIUM (HE) LIQUEFIER SYSTEMS - (15 LPD)





HEROSE - GERMANY (GMBH)



REPRESENTATIVE & STOCKIST FOR HEROSE VALVES IN INDIA

- Safety Relief Valve
- Thermal Relief Valve
- Divertor Valve
- Change Over Valve
- Globe Valve & Check Valve
- Stainer & Top Entry Valve
- Actuated Globe Valve (On/Off)
- Actuated Globe Valve (Control)
- Fill cluster with Check Function
- Ball Valve & Bursting Disc
- Drain Valve
- Three Way Valve

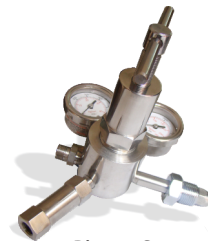
Regulation System



Double Stage Gas Regulator



High Pressure Gas Regulator



Phase Separator



Nitrogen Purging Kit
For Transformers



High
Pressure Hose



Cryogas & IWI Cryogenic Customers



Ultra Pure Gases's Customers

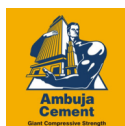
ABB

ACC
Cement
Privileged Dealer

AIR LIQUIDE

Alembic
Touching Lives over 100 years
Nurturing global well being...Since 1907

ALSTOM



AREVA

BANCO



Binani
BRAJ BINANI GROUP

BioTronics

Chemthots

G
Smart solutions.
Strong relationships.

Diamines
Quality driven

EMERSON

ESSAR



GAIL (India) Limited
Gas & Beyond

GNFC

GSECL
GUJARAT STATE ELECTRICITY LTD.

GUJARAT STATE FERTILIZERS & CHEMICALS LTD.
Integrated Management
System Certified Company



HMEL

IDMC LIMITED

IndianOil

इसरो ISRO

JK LAKSHMI CEMENT Ltd

KEMROCK
Industries and Exports Limited

KOCH-GLITSCH LP
KOCHOTTO YORK SEPARATIONS TECHNOLOGY

KRIBHCO

एनटीपीसी NTPC

ओएनजीसी ONGC

Pfizer

PHILIPS

Piramal Glass
knowledge action care

रत्नागिरी गैस एवं पावर प्रा. लि. RATNAGIRI GAS & POWER PVT. LTD.
(Promoters: NTPC Ltd & ONGC Ltd)

SANDVIK

SRF
Making our nation proud.

SUD-CHEMIE
Creating Performance Technology

TOSHVIN ANALYTICAL

RenewSys
let there be light



NUCLEAR POWER CORPORATION OF INDIA LIMITED
A Government of India Enterprise

एनटीपीसी NTPC

Exporting World Wide



CRYOGAS INDUSTRIES

Regd. Office : A-36, Ghanshyam Nagar Society - 2, GIDC Road, Manjalpur, Vadodara - 390 011. Gujarat, INDIA.

Phone : +91 265 2662236 / 2662288 • Fax : +91 265 2662047 Mobile : +91 98241 08734 / 99989 30099

E-mail : iwinayan@iwicryo.com / amrish-iwi@cryogas-equipment.com

CRYOGAS EQUIPMENT PRIVATE LIMITED - SEZ Unit

Survey No. 26P, Plot No. 9/1,
Aspen Infrastructure Ltd. -SEZ, AT. Village Pipalia,
Tal. Waghodia, Dist. Vadodara-391760, Gujarat. INDIA.
www.cryogasindustries.com

CRYOGAS EQUIPMENT PRIVATE LIMITED - DTA Unit

Plot No. 1434, Waghodia Industrial Estate,
Tal. Waghodia, Dist Vadodara - 391 760,
Gujarat, INDIA.
www.cryogasindustries.com

IWI CRYOGENIC VAPORIZATION SYSTEMS (I) PVT. LTD.

Plot No. 338, Waghodia Industrial Estate,
Tal. Waghodia, Dist Vadodara - 391 760,
Gujarat, INDIA.
www.iwicryo.com

ULTRA PURE GASES (I) PVT. LTD.

Plot No. 345, Waghodia Industrial Estate,
Tal. Waghodia, Dist Vadodara - 391 760,
Gujarat, INDIA.
www.ultrapuregases.com

LNG EXPRESS INDIA PRIVATE LIMITED

Plot No. 1433, Waghodia Industrial Estate,
Tal. Waghodia, Dist Vadodara - 391 760,
Gujarat, INDIA.
www.lngexpress.in