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N<sub>2</sub>

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## CNC Bangladesh Limited

A Leading Service Provider of  
Different Gases & Cryogenic Solution

### Head Office:

House: 65, Road: 14/1, Block: G, Niketon,  
Gulshan-1, Dhaka-1212

### Factory-1:

Shitalpur, Shitakunda, Chottogram

### Factory-2:

Piljong, Fakirhat, Bagerhat

### Factory-3:

Hatiyab, Madhya Para, Gazipur

# Introduction of CNC Bangladesh Ltd

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**CNC Bangladesh Limited** has started operating its business since 2020.

We are specialized in Industrial Gases, Cryogenic Solution along with engineering, fabrication and on site installation of gas solution system.

We provide customized-engineered gas system and cryo- equipment to industrial sectors in Bangladesh. Being an engineering company, we have a well experienced engineering team that is formed to ensure quality of all products and works along with its services.

## **Our Vision:**

To become a leading company by providing comprehensive Gas Solutions in Bangladesh.

## **Our Mission:**

Provide optimum service and innovative solution to our customer through Innovation, Technology, Quality and Safety while being eco-friendly following the highest standards to ensure absolute Customer Satisfaction.

## **Our Values:**

Our core value is to provide outstanding products & excellent services that, together, deliver premium value to our customers.

# Strength of CNC Bangladesh Ltd

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We are a group of well-trained, seasoned professionals totally dedicated to develop strong partnerships with our clients.

Each member of our senior management has of 15 – 25 years of experience in this industry. Added to the depth of experience are Young, Energetic Engineers, Experienced Quality person, Technicians, Fitters, and Welders etc. with 8 to 12 years of experience in a broad range of categories, as they possess a real fascination for their work.

Key Figures	Value
Management	05
Engineers	08
Team Size	45
Factories	03
Factory Area	73,000 sft
Turnover	400 mBDT

We use targeted research & development to test new ideas and execute your unique custom orders efficiently and effectively.

# Our Local Affiliations

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Sister Concerns:



Business Partners:



# Management



**Engr. Khalilur Rahman**, the Managing Director of CNC Bangladesh Ltd. He has been graduated in Mechanical Engineering from Khulna University of Engineering & Technology (KUET) in 1996. He is also Owner of Gas & Gear Bangladesh.

Mr. Khalil has acquired 28 years experience and knowledge in different fields of gas industries particularly in project implementation, operation & maintenance, factory installations, cryogenic tank repair including vacuum technology and other specialized allied installations of various manufacturing units.

Engr. Khalil initiated an active pioneering role in diversifying the portfolios of the company, through establishing various sister-concerns to address different industrial gas sectors. Engr. Khalil's pragmatic initiative has resulted in diversifying the business activities of the company.

Mr. Khalil with his visionary idea mobilized CNC Bangladesh Ltd into the new horizon of mix gas manufacturing projects. Under his able leadership for over five years; CNC has now grown to a specialized turn-key contractor of Industrial Gas sectors.

**Engr. Mithun Sarker**, General Manager of CNC Bangladesh. He has been graduated in Mechanical Engineering from Rajshahi University of Engineering & Technology (RUET) in 2009.

Mr Mithun Sarker has capable operation, planning, monitoring, business handling, tender documents preparing more than 14 years experience in different production industries. He is also expert project implementation, testing & commissioning of Auto Fire Fighting System.





# Management

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**Md Gazi Shalauddin**, General Manager of CNC Bangladesh Ltd. He has been masters in Pharmacy from Rajshahi University (RU) in 1998. Md Gazi Shalauddin has capable approval of all written procedures related to production, quality control, product development and maintenance, validation activities, raw and finish materials reject or approve, inspection, investigation, monitoring of compliance with GMP requirements more than 24 years experience in different production industries.

**Engr. Afroja Khatun**, General Manager of CNC Bangladesh Ltd. She has been graduated in Mechanical Engineering from Khulna University of Engineering & Technology (KUET) in 1996. Engr Afroja has capable commercial and purchase professional more than 18 years experience in trading corporation and production industries. Engr Afroja initiated an active pioneering role in diversifying the portfolios of the company through establishing various sister-concerns to address different companies.



**Khan Abdullah Al Saber**, Business Operations Manager of CNC Bangladesh Ltd. He has been qualified ACCA & BSc in Applied Accounting in 2016. Md Saber has capable commercial and purchase including Import, Shipping, Banking (currency allocations), Insurance and Inspection (Shipments), corresponding with International Suppliers, in-person follow-up relevant Ministries and Central Bank. Analyze price proposals, financial reports, and other data and information to determine reasonable prices. He also do sourcing, supplier selecting, negotiating, contracting, ordering and etc.

# Production Facilities

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- CNC Bangladesh Ltd. factory is at Shitalpur, Shitakunda, Chattogram
- 200 Km from Dhaka, ZERO point
- Different Gas Cylinders Filling & other service facilities
- Compressed Oxygen
- Compressed Argon
- Carbon di-Oxide
- Dry Power
- Inergen (Mixture of N<sub>2</sub>: 52% + Argon: 40% + CO<sub>2</sub>: 8%)
- Corgon (90% + 10%) & (80% +20%)
- Cylinder Testshop Facilities
- Liquid Nitrogen (Dewar)
- High Pressure Compressed Nitrogen
- Cryogenic Tank Repair/Maintenance
- Nitrogen Purging Facilities

# Production Facilities



- Gas & Gear Bangladesh factory is at Piljong, Fakirhat, Bagerhat
- 165 Km from Dhaka, ZERO point
- Different Gas Cylinder Filling & other service facilities
- Fire Suppression clean agent (FS 125 & 1230) and FM 200
- Inert Gas Fire Suppression System
- Inergen (Mixture of N<sub>2</sub>: 52% + Argon: 40% + CO<sub>2</sub>: 8%)
- Dry Power
- Carbon di-Oxide
- Compressed Argon
- Corgon (90% + 10%) & (80% +20%)
- Liquid Nitrogen (Dewar)
- Compressed High Pressure Nitrogen
- Different Mixed Gases
- Calibration Gases (Import & Local Production)
- Helium & Hydrogen (Import)
- Nitrogen Purging
- Compressed Oxygen (Collaboration with MS Rocky Oxygen)



# Our Major Customers



# Cylinder Filling Facilities (NAFS)

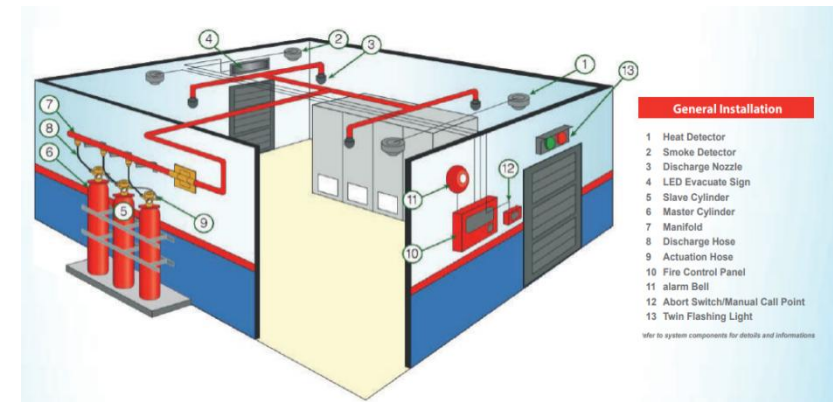


26.5 to 120 liters, are super-pressurized to 42 bar.

CNC Bangladesh Ltd. provide the total solution of Fire Suppression System of Data Center, Control Room, Switch Room, Server Room, Power Room, Generator room, Substation Area, Archive Room and so on. We can provide you the exact solutions those actually required for your different areas. The areas where you cannot use water as a suppressant of fire (Like Server room or Switch Rooms), in those areas our system is best suited. We can provide you the total packaged solution.

## Our Facilities:

1. NAF S1230 Fire Suppression Gas Filling System
2. NAF S125 Fire Suppression Gas Filling System
3. CO2 Fire Suppression Filling System
4. Design Software for Flow calculation
5. Well experienced management
6. Expert Technicians
7. 24 x 7 Dedicated service team
8. Sufficient tools and machinery
9. No negotiate with QUALITY & SAFETY
10. Committed to hand over projects on time
11. Ensure fast & prompt support as customers call



# Cylinder Filling Facilities (INERGEN)

Inergen is a mixture of

- Nitrogen: 52%
- Argon: 40% and
- Carbon di-Oxide: 8%

However, in the event of a fire, when Inergen is discharged, it mixes with the air present in the room to create a mixture that comprises of 67.3% Nitrogen, 12.5% Oxygen, 17% Argon and 3.2% Carbon Dioxide.

This discharge mixture makes Inergen singularly unique. No other inert gas has the unique ability to rapidly extinguish a fire yet at the same time provide a safe environment for any person within the occupied area by actually decreasing cardiac distress and maintaining arterial blood oxygenation and mental performance in low oxygen levels.

Each valve includes quick connect connectors for the pilot actuation line to allow pneumatic opening of the valve. Each master cylinder in the bank will be fitted with an electrical/manual release unit. A pressure gauge/switch included in the release unit or slave cylinder gauge assembly provides local and optional remote monitoring of the cylinder pressure



IG-541 at 200 bar & 300 bar





# Locally Calibration Gases Filling ..... On going

Calibration Gases by definition are mixtures of gaseous components from as little as 2 up to an indefinite number. Two methods of manufacturing calibration gas mixtures: **Gravimetric** and **Volumetric**.

Below calibration gases are being trading from abroad for different customers. These gases are being prepared in our factories.

Calibration Gases	Calibration Gases	Calibration Gases	Calibration Gases
UHP Ar: 99.999%	CH <sub>4</sub> : 44.4%, N <sub>2</sub> : Balance	CO: 160 mg/Nm <sup>3</sup> , N <sub>2</sub> : Balance	CO <sub>2</sub> : 6.0%, O <sub>2</sub> : 5.0%, N <sub>2</sub> : Balance
UHP N <sub>2</sub> : 99.999%	NH <sub>3</sub> : 250 ppm, N <sub>2</sub> : Balance	O <sub>2</sub> : 0.7%, N <sub>2</sub> : 3.0%, CO <sub>2</sub> : Balance	CH <sub>4</sub> : 22.5%, N <sub>2</sub> : 7.5%, H <sub>2</sub> : Balance
UHP O <sub>2</sub> : 99.999%	NH <sub>3</sub> : 400 ppm, N <sub>2</sub> : Balance	H <sub>2</sub> : 2.01%, Air: Balance	CO <sub>2</sub> : 9000 ppm, N <sub>2</sub> : 26.1%, H <sub>2</sub> : Balance
UHP Zero Gas	NH <sub>3</sub> : 30%, N <sub>2</sub> : Balance	Ar: 2.0%, O <sub>2</sub> : Balance	O <sub>2</sub> : 8000 ppm, H <sub>2</sub> : 450 ppm, N <sub>2</sub> : 5.5%, CO: Balance
O <sub>2</sub> : 20.5%, N <sub>2</sub> : Balance	O <sub>2</sub> : 99.8%, N <sub>2</sub> : Balance	CO <sub>2</sub> : 300 ppm, N <sub>2</sub> : Balance	Ar: 0.15%, O <sub>2</sub> : 0.15%, CH <sub>4</sub> : 3.0%, CO <sub>2</sub> : 10%, N <sub>2</sub> : 25.0%, H <sub>2</sub> : 56.7%
O <sub>2</sub> : 18 ppm, N <sub>2</sub> : Balance	O <sub>2</sub> : 6.0 ppm, N <sub>2</sub> : Balance	CO <sub>2</sub> : 0.85%, N <sub>2</sub> : Balance	
O <sub>2</sub> : 0.42%, N <sub>2</sub> : Balance	N <sub>2</sub> : 27.0%, H <sub>2</sub> : Balance		
O <sub>2</sub> : 2.0%, N <sub>2</sub> : Balance	CO <sub>2</sub> : 4.0%, He: Balance		
O <sub>2</sub> : 4.0%, N <sub>2</sub> : Balance	CO <sub>2</sub> : 20.0%, Ar: Balance		
N <sub>2</sub> : 25.61%, H <sub>2</sub> : Balance	H <sub>2</sub> : 101 ppm, CO <sub>2</sub> : Balance		
Ar: 30.0%, He: Balance	H <sub>2</sub> : 1.0%, CO <sub>2</sub> : Balance		
Ar: 15%, O <sub>2</sub> : Balance	H <sub>2</sub> : 5.0%, N <sub>2</sub> : Balance		
O <sub>2</sub> : 8.0 ppm, Ar: Balance	H <sub>2</sub> : 40.0%, N <sub>2</sub> : Balance		
CH <sub>4</sub> : 14.91%, N <sub>2</sub> : Balance	H <sub>2</sub> : 50.0%, N <sub>2</sub> : Balance		
CH <sub>4</sub> : 15.0%, N <sub>2</sub> : Balance	N <sub>2</sub> : 30.0%, H <sub>2</sub> : Balance		



# Cylinder Filling Facilities of different Gases



140 Bar Argon Filling

Plant Capacity: 2.2 million M<sup>3</sup>/Annum



Carbon di-oxide Filling

Plant Capacity: 4.8 million Kg/Annum



Corgon Gas Filling

(Argon + CO<sub>2</sub>)



Gases Mixer Filling

4 Gases Mixture in %



Nitrogen/Helium Filling

Up-to 300 Bar



140 Bar Oxygen Filling

Plant Capacity: 2.2 million M<sup>3</sup>/Annum



# Different Gases Filling Facilities:

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LIN Filling in Dewar



Helium Trans Filling  
at 200 Bar



Dry Power  
Fire Extinguisher  
Cylinder Filling



Fish/Meat/Vegetable  
Freezing by Liquid Nitrogen

# Liquid Gases Supply Facilities

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Liquid Nitrogen (LIN)  
Capacity: 10 & 15 KL



Liquid Argon (LAR)  
Capacity: 15 KL



Liquid Carbon di-Oxide (LCO2)  
Capacity: 12 & 20 Ton

# Trading Gases



Helium Gas  
Purity: 99.999%



Calibration Gases  
Customer Specific



Refrigerant Gas  
Different Type



Hydrogen Gas  
Purity: 99.999%



SF6 Gas  
Purity: 99.99%



Ammonia Gas  
Purity: 99.9%



# Nitrogen Purging

Nitrogen purging plays an important role in the safety and functioning of various plants/equipment that are susceptible to fire hazards. In fire and explosion protection engineering, an inert (non-flammable) purge gas (nitrogen, argon, helium etc.) is introduced into an enclosed system (vessels, pipelines, equipment, containers etc.) to prevent the formation of a fuming flammable atmosphere.

This inert gas helps to mitigate the risk by overriding hazardous fire/explosion forming agents like oxygen. To displace undesirable Newly laid pipeline network and sometimes after maintenance and shutdown work nitrogen purging in pipelines is performed.



- This process is important to remove retained moisture, oxygen, and other impurities that may otherwise change the quality of the fluid being transported.
- Nitrogen purging in pipelines is a pretty straightforward procedure.
- Pressurized nitrogen gas is forced through pipelines that force out all gaseous and particulate impurities present inside

# Service Facilities



## Cylinder Test Facilities:

Our test facilities leads up-to 5,000 Psig hydraulic pressure tests of different gas cylinders as per DOE guideline.



## VJ Pipeline:

Locally fabricated Vacuum Jacket (VJ) pipeline for cryogenic liquids transfer from tank to user point. Vacuum level: 0.05 mbar



## Cryogenic Vessel Repair:

Tank/ Transport leak detection, TIG welding, pressure test, perlite filling, re-vacuum.



## SKID for Customer Gas Supply:

Locally fabricated gas SKID for liquid to gas supply with customer required pressure & flow with proper safety interlocks.



## Gas Manifold:

Locally fabricated gas manifold for Medical Oxygen. Industrial Argon Oxygen, Nitrogen, Carbon di-Oxide. Both MS & SS Pipeline network.



# Consultancy, Installation & Commission

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Consultancy	Installation	Others
▪ ASU Plan	▪ MLOX/LOX Storage	▪ Cryo-Freezing
▪ Liquid Nitrogen Plant	▪ LIN/LAR/LCO2	▪ O2 PSA Plant
▪ Liquid CO2 Plant	▪ Fire Suppression	▪ Medical/Industrial Gas Pipeline
▪ N2O Plant	▪ Manifold & Pipeline	▪ Telemetry/Flow Meter/O2 Monitor
▪ C2H2 Plant	▪ Gas Mixing System	▪ Sewerage Treatment Plant
▪ Cylinder Filling Station	▪ VJ Pipeline	▪ LNG Station

# Authorized Distributor of our Sister Concern

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Gas & Gear Bangladesh is the authorized distributor of **Safety Hi-Tech Europe SRL**, with registered address in Via degli Olmetti, 39/E – 00060 Formello (Rome) Italy.

1. NAF S1230 Fire Suppression Gas
2. NAF S125 Fire Suppression Gas



Gas & Gear Bangladesh is the authorized distributor of **INOXCVA**, with registered address in 9<sup>th</sup> Floor, KP Platina Race Course Vadodara - 390 007 Gujarat, India.

1. Cryogenic Tank, Transport Tank, Micro Bulk Cylinder
2. Different Type Vaporizers
3. LNG Mobile Supply system



Gas & Gear Bangladesh is the authorized distributor of **Shell n Tubes**, with registered address in 3, Gulmohar Orchids, 29/37, Sahney Sujan Park Lullanagar, Pune - 411 040, Maharashtra, India.

1. Super Insulated Vacuum Line (SIVL)
2. Cryogenic Solutions, Online Telemetry, Flow Meter, Oxygen Monitor etc.

# Authorized Distributor of our Sister Concern

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Gas & Gear Bangladesh is the authorized distributor of Indian Compressor Ltd, with registered address in 35, Okhla Phase III, Okhla Industrial Area, New Delhi, Delhi 110020, India

1. Industrial Gas Compressors
2. Cryogenic Pumps
3. CNG Compressors
4. Oil-free Compressors

Have solutions to compress all gases: inert, explosive and rare - Hydrogen, Oxygen, Helium, Xenon, Fluorine, CNG etc.

Cryogenic liquids: LOX, LIN, LAR, LNG, CO2, Nitrous Oxide.



Gas & Gear Bangladesh is the authorized distributor of Vadilal Chemicals Ltd, with registered address Opp. Iscon Temple BRTS Bus Stop, Ambli Bopal Road, Ahmedabad- 380 054, India.

1. All Type of Calibration & Rare Gases



**THANKS !**

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**Do you have any questions for us?**

[info@cryogenicchemicals.com](mailto:info@cryogenicchemicals.com)