



Introduction

BNH LPG Cylinders manufactures Cylinders required for storage of various liquids and gases like LPG, BUTANE, PROPANE, FREON, AMMONIA, ACETYLENE, ETC. in a wide range of various capacities for use in domestic, industrial sectors.

These tanks are manufactured confirming to various design standards like DOT,EN1443 ISO 4706 etc and under the stagewise inspection of various third party inspection agencies like DNV, BVIS, TUV, LLOYDS and others.

Our endeavor is to create value for the society at large. Pollution has become a matter of great concern and vehicular pollution had multiplied it. Auto LPG, the cleaner fuel comes with advantage of cost benefit and ready availability.

Organization & Man power

Since 2008, we provide best service for our valuable clients.

BNH LPG Cylinders has its own in-house Design, Quality Control, Maintenance, and Production departments. Due to periodic technological upgrades, the existing technical manpower is adequate to meet the ever-increasing production levels. Our team works closely with the customers on new products and applications. Ideas, technology and expertise are exchanged. This enables us to serve our clients better and meet new challenges.

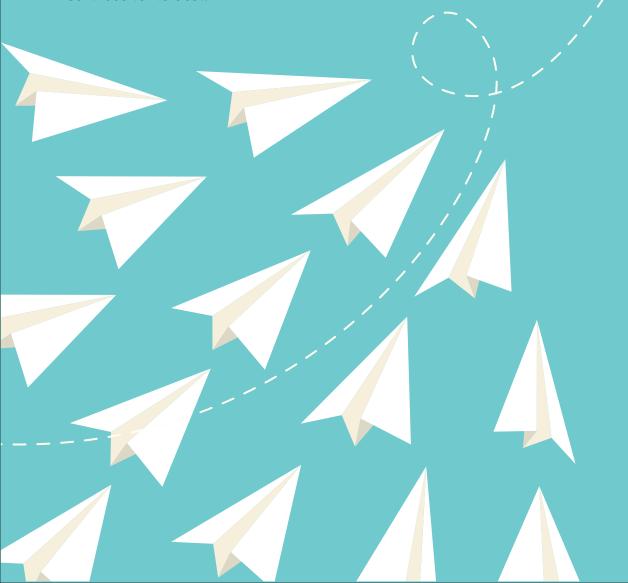
We own a manufacturing unit that is enabled with modern machines based on latest technology. It provides us an advantage to develop our cylinders with innovative technology.

Our Vision

We strive to create a new improved tomorrow through our products which make a clean and green environment.standards. To become a world-class, fully integrated LP Gas Company that upholds the highest environmental health and safety standards

Our Mission

To truly understand the clients' perspectives and to supply the highest quality cylinders that talk safety and reliability. To ensure our clients about the miracles of engineering services to its best.





Empowered By Excellence

Our values are to strive for product and service excellence through a relentless focus on Quality, People, Process, and Clients. We value and expect integrity in all that we do. We recognize that the foundation of our growth and success is making each and every client's project a success. We are determined to build a company culture based on superior performance, success through teamwork, respect and recognition for the individual diverse and challenging work, and flexible and rewarding career opportunities for our employees. We are committed to providing superior returns for our investors.

We understand & deliver unique requirements





Involved In Research And Development

We have set up a full-fledged Research and Development Wing that is managed by highly qualified researchers and technocrats. We are involved in constant research work in order to improve the quality of our cylinders. Further, due to their innovative approach, we are able to develop new and effective range of these cylinders. Apart from it, our research team in constant touch with our clients to understand their requirements. It allows us to manufacture our products in accordance with the clients' specifications.





We have sizes and gas types for every activity from Camping, DIY, Indoor heaters, Caravans, BBQ's and much, much more. From 3kg to 50kg, cylinders are available for collection from all BNH LPG CYLINDERS L.L.P stores. LPG Cylinder Production within the guidelines of the international standards such as EN 1442 involves several process steps starting from forming to final testing that can be streamlined into the following lines:

- **⇒** Blanking & Body Forming Line
- **⇒** Valve Guard Ring & Foot Ring Production Line
- ⇒ Valve Neck (Valve Boss or Neck Ring) Production Line
- **⇒** Welding, Heat Treatment and Hydrostatic Testing Line
- **⊃** Surface Coating Line
- ⇒ Finishing Line with Pneumatic Testing

Butane Gas Cylinders

At BNH LPG CYLINDERS L.L.P we stock the full range of LPG cylinders. We have sizes and gas types for every activity from Camping, DIY, Indoor heaters, Caravans, BBQ's and much, much more. From 3kg to 50kg, cylinders are available for collection from all BNH LPG CYLINDERS L.L.P stores.







Propane Gas Cylinders

Propane gas cylinder have a wide range of uses and are the perfect solution for heating and cooking for both touring and static caravans, narrow boats and catering vans. Propane comes in colour bottles and is suitable for outdoor use, industrial and domestic heating and cooking.

Propane cylinders, also called bottles, vary in size, shape, and capacity. Most people that grill with propane use the smaller, five gallon propane bottles. Forklift operators use a propane cylinder designed specifically for forklift use. Shown below are the most common and widely used propane cylinders that we keep in stock for residential and commercial applications. We provide cylinder services for propane cylinder users.



Ammonia Gas Cylinders



We are into offering a premium range of Ammonia Cylinders. Offered Ammonia Gas Cylinders are equipped with best quality valves that are very easy to open and close. Our ammonia cylindersare in adherence to the quality issued by state bureau of quality and our gas cylinders are covered by "safety supervision regulations for gas cylinders". Under strict rules and regulation, we manufacture Ammonia Cylinders thatare widely demanded for various industrial applications that includes heat-treating processes such as Nitriding, Sintering, Carburizing and furnace brazing. Further, these ammonia cylinders are also used as a refrigerant, in pH neutralization, chemical manufacturing, pharmaceuticals and even water treatment. We are manufacturing the Ammonia gas forvarious industrial purposes.

Freon Gas Cylinders



BNH LPG CYLINDERS L.L.P has been producing since 2000 vessels designed to contain air and gas and over the past 15 years has expanded its production by introducing a new range of containers for refrigerants. In this way, he gained recognition as a top-level producer also by sectors linked to the "automotive" and conditioning ones.be streamlined into the following lines:

- **○** 50% lighter than carbon steel
- Corrosion resistant
- **⇒** Modern design Line
- ➤ No maintenance costs
- **⇒** Fully recyclable
- Environmental friendly

Acetylene Gas Cylinders

Acetylene Gas is a fuel gas ideal for Oxy-Acetylene welding, cutting, localised heating and flame hardening. Available in Instrument Grade.

Specific and immediate action is required with any acetylene cylinder, If

- The contents gauge shows a pressure higher than 2750 kPa.
- The cylinder is heated accidentally.
- **⇒** The cylinder becomes unduly warm.
- **⇒** No maintenance costs
- There is any sign of smoke
- **⊃** There is an unusual smell with gas discharged.
- **⇒** An explosion occurs in the regulator or hose.







Refrigerant Cylinders

We manufacture Refrigerant Cylinders of various capacities ranging from 2 Kgs to 50 Kgs. These cylinders comes with valve, Hose and Regulator with all safety norms. The valves of the small bottle are provided with safety relief valve for additional safety. The cylinders body is tested for leaks and Burst tested to determine its strength .Anticorrosive paint is applied on cylinder body to prevent corrosion and increase its life.



(R32,R407C,R410a,R134a other refrigerant goes)



LPG Domestic Cylinders

We manufacture LPG bottles of various capacities ranging from 2 Kgs to 50 Kgs. These LPG domestic cylinders comes with valve, Hose and Regulator with all safety norms. The valves of the small LPG bottle are provided with safety relief valve for additional safety. The LPG cylinders body is tested for leaks and Burst tested to determine its strength. Anticorrosive paint is applied on cylinder body to prevent corrosion and increase its life.

Production Lines

BNH LPG CYLINDERS L.L.P gas bottle programs include the production lines for the bottles from different sectors such as home appliance, automotive, diving, medical, fire-protection etc. Following lines could be delivered at turnkey basis

Step1: Blanking & Body Forming Line

Step2: Welding, Heat Treatment and Hydrostatic Testing Line

Step3: Valve Guard Ring & Foot Ring Production Line

Step4: Valve Neck (Valve Boss or Neck Ring) Production Line

Step5: Surface Coating Line

Step6: Finishing Line with Pneumatic Testing

Blanking & Body Forming Line

In the core of the forming line there stands a versatile double action BNH LPG CYLINDERS L.L.P hydraulic deep drawing press that forms the cylinder halves out of round blanks that are blanked by a single action double blanking BNH LPG CYLINDERS L.L.P press or directly from the coil material by help of BNH LPG CYLINDERS L.L.P design combined deep drawing, piercing and blanking die set. The edges of the upper and lower halves are further processed by BNH LPG CYLINDERS L.L.P trimming and joggling machines to the perfection stemming from the sheet metal forming expertise of BNH LPG CYLINDERS L.L.P to make it read for the body seam welding after degreasing.





Government has allowed the sale of 5 Kg LPG cylinder with/ without Domestic Pressure Regulator (DPR) through Public Sector Oil Marketing companies (OMCs) Retail outlets, which are accessible to all and are open for longer hours. Subsequently sale of 5 Kg LPG cylinder has been extended to LPG distributorship points and General stores etc also to further convenience of the target consumers., Assured quality and quantity Safety features

- ⇒ ISI marks for both Cylinder and Cooktop
- → Approved by Government of India's Explosives department.
- → Periodic testing of Cylinders
- ⇒ Mention of tare weight on Cylinder
- ⇒ Fully recyclable
- → Mention of Batch and Serial Nor

Bottled gas

BNH LPG Cylinders, bottled gas, with a range of products adapted to each market, aimed at major consumption to satisfy its customers" needs and provide them quality and service.

- **○** 12.5 kg butane bottle for domestic use and the services sector.
- 11 kg propane bottle for homes, small industry and services.
- **⇒** 35 kg propane bottle for domestic, craft, industrial, agricultural and services use.
- 12 kg auto LPG bottle. For industrial use (forklift trucks) and the services sector (taxis).



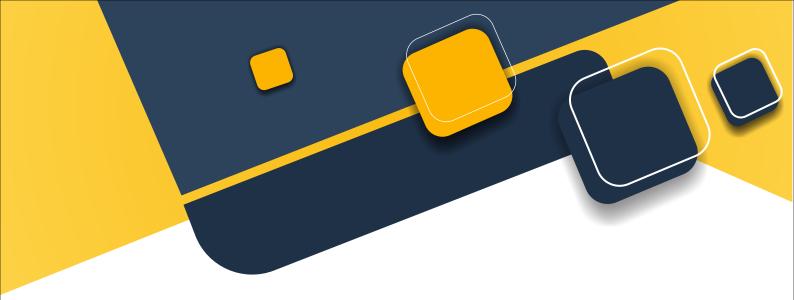
Welding, Heat Treatment and Hydrostatic Testing Line

The submerged arc welding technique is applied on the welding of body halves on the seam welding machine and generally on the wielding of the valve boss to the upper cylinder halve. The welding automats with reliable welding power packs and control units are utilized to achieve the uncompromising weld quality with degree of automation needed for the required production capacity per customer. The MIG/MAG welding technique is applied for the welding of foot rings and valve guard rings with the body halves. In order to relive all the stresses caused by forming and welding operations, the cylinders are passed through a heat treatment furnace where they are exposed to 930 ° C degrees of temperature for certain time before getting cooled gradually.

Valve Guard Ring & Foot Ring Production Line

LPG Cylinder valves BNH LPG CYLINDERS L.L.P offer complete production lines for all types of gas bottle valves. All the required equipment such as the induction heater, the forging press, the flash trimming press, the shot blasting machine, transfer machines to manufacture valve body pieces, the CNC lathes for smaller valve pieces and the washing machine can be supplied by BNH LPG CYLINDERS L.L.P. We supply turnkey production line machines with the engineering for the tooling and die sets specifically designed for particular valves. The valve pieces are assembled on the assembly and testing line where operational turn on turn off pressure levels and safety release pressure levels are adjusted, set and tested as per applicable international standards.





Production Process

The valve body is made out of brass bars by forging and machining. The bars are cut to required length by the saw and fed to the induction heater to heat up before forged under the forging press. After the forging and trimming operations the pre-forms are shot blasted and machined in the transfer machines and washed and dried to remove the chips. The plastic seat holder and spindle guide are manufactured by the plastic injection machine equipped with proper multi cavity die sets. The spindle parts and the retaining and adjustment screws are manufactured by the CNC lathes automatically fed by the bar feeders and washed in washing and drying machine. The valve pieces are assembled and leak tested and lock pinned on the assembly & testing line benches after manufacturing.

Valve Neck (Valve Boss or Neck Ring) Production Line

The steel rods of the neck ring start off material are first cut in required dimensions by saw, the pieces are induction heated up to forging temperature of 1200°C, de-scaled by de-scaling hammers and forged under the forging press in the die sets to get the performs to be further processed by flash trimming and hole piercing operation followed by the precise turning operation to get the final shape with valve threads.

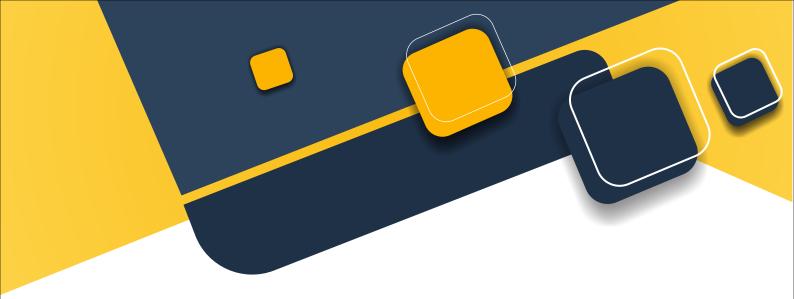
Production Process

The bar is cut to required length by the saw and fed to the induction heater to heat up to forging temperature. After de-scaling and forging, the trimming and hole punching is achieved before the machining operation on the CNC lathes to give the final shape and cut the threads. High pressure gas cylinders can range in size from a few liters to over one hundred, and they fulfill a wide variety of functions whether as medical or industrial gas tanks, accumulator shells, CNG containers onboard natural gas vehicles or SCUBA diver tubes. One thing, however, they all have in common: production quality is of utmost importance, because lives can depend on the integrity of a gas cylinder.

Surface Coating Line

The LPG cylinders surfaces are shot blasted by the shot blasting machine in order to clean up the scales caused by the heat treatment operation to make the surface ready for the painting and or zinc spraying for those customers who requires zinc coating before painting. The double layer over cured painting of the cylinders is achieved automatically by the robotic paint application system in the painting line as the cylinders conveyed on overhead conveyor system through the primary and final coat painting cabinets separated by flash off tunnels before they get cured in the canopy type modern paint curing oven. After the tare weighing and marking of the cylinders, the valves are attached by automatic torque controlled screwing machines and tested against any leakage at the valve region by the pneumatic leakage testing machine of the finishing line. One of the batch type quality control equipment called by the international standards is the burst expansion testing unit where the volumetric expansion ratio and the burst pressure is measured to the full satisfaction of even most stringent requirements.





Finishing Line with Pneumatic Testing

The Pneumatic Testing Unit utilizes necessary equipment to apply and maintain the pressurized air into the cylinders. The pressure is applied for two minutes (adjustable) and any leakage is sought visually on the dashboard gauges. Pneumatic Testing Unit has following properties

- Working Test Pressure
- ➤ Working Efficiency (pcs/hour)
- Turnover Speed
- Necessary Equipments
- **⊃** Low-pressure air compressor

Forming Technology And Machines

The manufacturing program of BNH LPG CYLINDERS L.L.P "The Metal Forming Expert" includes all the key equipment a manufacturing plant requires from RNM Series Hot Spinning Machines and RFM/RFFFM Series Flow forming Machines to RHHP Series Hydraulic Presses.

PIPE BOTTOM CLOSING & NECKING-IN OPERATIONS BY HOT SPINNING MACHINES HOT SPINNING MACHINES can be tooled to perform bottom closing or necking-in operations. Equipped with an integral induction heating furnace and automatic loading / unloading system to optimize operation efficiency in short cycle times, RNM Series ensure impeccable process quality by its unique designs.

FCOLD FORMING, THICKNESS REDUCTION & FORGING OPERATIONS BY PRESSES.

Representing premium quality and state-of-the-art technology in cold forming (deep drawing and ironing) and hot forging, BNH LPG CYLINDERS L.L.P Hydraulic Presses are custom designed to meet clients' specific requirements. Deep drawing is a widely used cold forming operation for cupping blank plate material into cylindrical tube shape, generally in multiple stages. Die sets specifically designed for a product group of certain diameter and thickness are used in deep drawing, and the operation can include intermediate processes such as annealing and phosphate bond lubrication.

Another cold forming technique, ironing, targets wall thickness reduction instead of cupping; specifically designed die sets are central to ironing as well, to be used under cold forming presses in precise specifications determined by BNH LPG CYLINDERS L.L.P's design engineers for the exact requirement of each and every customer. The design of assorted die sets can call for a combination of the two techniques.

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Starting from a seamless pipe, plate or billet, the production of a high pressure gas cylinder involves several forming process stages. BNH LPG CYLINDERS L.L.P not only manufactures forming machines but also offers "Turnkey" high pressure gas cylinder production plants from A to Z.





Quality Excellence

We Supply LPG Cylinders with

Assured Quantity and Quality standards and passes through stringent quantity and quality control checks. All our filling plants are equipped with electronic check weigh scales to ensure accurate measurement during the cylinder filling process and adherence to prevailing statutory norms.

Our company has always maintained quality of the entire range of industrial cylinders to ensure product consistency and integrity. We follow strict quality control policy that is based on strict statistical data. Our Quality Policy states "Quality will be a competitive advantage that is gained through meeting Customer expectations by delivering on commitments and sustained through continuous improvement". We have established a sophisticated quality testing facility that helps us in checking our products on following quality parameters:

- Durability
- **⊃** Efficiency
- **⇒** Leak proof
- Functionality

We Export Our Products To More Than 60 Countries.



Committed To Quality .Committed To You.



भारतीय मानक ब्यूरो **BUREAU OF INDIAN STANDARDS**

गुणता प्रबंध पद्धति प्रमाणन लाइसेंस

LICENCE FOR THE QUALITY MANAGEMENT SYSTEMS CERTIFICATION

राष्ट्रीय प्रत्यायन प्रमाणन निकाय बोर्ड, नई दिल्ली द्वारा प्रत्यायित (Accredited by National Accreditation Board for Certification Bodies, New Delhi)

अनुज्ञित सं. क्यूएम/एल-7004669.0 Licence No. QM/L- 7004669.0

ब्यूरो, भारतीय मानक ब्यूरो अधिनियम, 2016 (2016 का 11) द्वारा प्रदत्त शक्तियों के नाते निम्नतिखित को मंजुरी देता है: By virtue of the power conferred on it by, the Bureau of Indian Standards Act, 2016 (11 of 2016), the Bureau hereby

मे. बीएनएच एलपीजी सिलिंडरस एलएलपी M/s BNH LPG Cylinders LLP गट नं. 753, शिरोली, ताल: खेड़, पुणे- 410 505, महाराष्ट्र

GAT No. 753, Shiroli, Tal: Khed, Pune- 410 505, Maharashtra

(जिसे इसमें इसके पश्चात इसे अनुजिसिधारी कहाजवा है) इस अनुसूधी में वर्णित विशेष तींच पर उत्पाद एवं/ या सेवाओं की प्रक्रियाओं के संबंध में मुणता प्रवंध पद्धति प्रमाणत के अनुजिसेधारकों की ब्यूरी की सूधी में इस अनुजिस के अनुसार इसी संख्याधारक को अधिकार एवं अनुजिस सूचीवद्ध किया जाए (IS/ISO 9001:2015 के अनुसार मुणता प्रवंध प्रणाली के अधीन उत्पत्त दिए गए पते (पती) पर केवल अनुजिसिधारक द्वारा ऐसे उत्पाद एवं/ या सेवाओं या प्रक्रियाओं को निर्मित किया/ उपलब्ध कराया/ चलाया जायेगा।

(hereinafter called the Licensee) the right and licence to be listed in the Bureau's list(s) of Licensees of Quality Management Systems Certification in respect of the products and/or services or processes particularly described in the schedule hereto, bearing the same number as this licence. Such products and/or services or processes shall be manufactured/provided/carried out by the Licensee at only the address (es) given above, and under the Quality Management Systems in accordance with IS/ISO 9001:2015

अनुजति उक्त अधिनियम एवं उनके अधीन नियमों तथा विनिय<mark>मों के संवंधित उपवंधों की शर्त पर मंजूर</mark> किया गया है तथा उपत संदर्भित अनुजरियों को इसके तहत शासित किया जाता है, तथा अनुजतिधारक उक्त नियमों एवं विनियमों का पालन किए जाने के तिए ह्यूरों के एति प्रतिनाबद्ध हैं ।

The licence is granted subject to the relevant provisions of the above Act and the rules and regulations made thereunder governing the licences referred to above, and the Licensee hereby covenants with the Bureau duly to observe with the said Rules and Regulations.

यह अनुनसि 29 मार्च 2019 से 28 मार्च 2022 तक विधिमान्य रहेगा तथा विनियमों में यथा निहित पुनः प्रमाणन दिया जा सकेगा। This licence shall be valid from 29 March 2019 to 28 March 2022 and may be recertified as prescribed in

सन दो हजार उन्नीस के अप्रैल माह के चौथे दिन हस्ताक्षरित/ मुहरांकित। Signed, Sealed and dated this Fourth day of April Two Thousand Nineteen

Mahim Jain, DDGW

भारतीय मानक ब्यूरो के लिए For BUREAU OF INDIAN \$TANDARDS

sst Certification Expiry - N.A.

MSC-F6.4-12 Issue - 04









Quality is a trait that we navigate.



BNH LPG CYLINDERS World's Largest Manufacture of Gas Cylinders



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Factory Address: Gat No: 753, Shiroli, Tal. Khed, Dist. Pune - 410505