



# GOVIND METALS PRIVATE LIMITED

——— QUALITY. STRENGTH. RELIABILITY ———

## MANUFACTURERS OF Extruded Copper and Copper Alloy Products



PREMIUM  
QUALITY



PRECISION  
EXTRUSION



CORROSION  
RESISTANT



CUSTOMER  
FOCUSED



SUPERIOR  
STRENGTH



PRECISE  
DIMENSIONS



WIDE RANGE OF  
PRODUCTS



TRUSTED BY  
INDUSTRIES

# INTRODUCTION

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Govind Metals private limited Industries, is located at Station Road, Bhandara. The company is in the field of manufacturing of Copper and Copper Alloy Rods and Sections conforming to all BSS and IS standards or according to customer specification and needs. The Company has a team of experienced Metallurgical, Mechanical, Electrical Engineers and other Staff. The company believes in producing highest quality standards, in time delivery and services to the utmost satisfaction of its customers.



## **QUALITY ASSURED**

Manufacturing as per  
BSS & IS standards



## **EXPERIENCED TEAM**

Skilled professionals  
driving excellence



## **ON-TIME DELIVERY**

Committed to timely  
delivery and reliability



## **CUSTOMER SATISFACTION**

Delivering quality products  
and services with integrity



# ABOUT US



Established in 1977, our group has been a trusted name in the non-ferrous metal industry for over four decades. Spread across a 5-acre manufacturing facility (2,15,000 sq. ft.), we are backed by a team of 150+ skilled professionals dedicated to quality, precision, and reliability.



We specialize in the manufacturing and recycling of non-ferrous metals, with a strong focus on sustainability and responsible production. By utilizing secondary scrap resources, we actively promote recycling and environmentally conscious manufacturing practices.



## **Solar Power Installation.**

To reduce reliance on non-renewable energy, we have installed solar power systems with a capacity of 1,000 kW. This initiative not only lowers our carbon footprint but also encourages the use of clean energy in our operations.



Our extended company, Shree Mangal Metals, where we manufacture domestic brass and copper utensils, sheets, and circles.





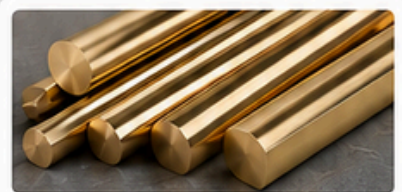
# EXPLORE OUR PRODUCTS!



- ✓ Brass Ingots & Billets
- ✓ Brass Extruded Rods
- ✓ Brass Sheets & Circles
- ✓ Brass Utensils
- ✓ Brass Fittings
- ✓ Copper-Based Alloys
- ✓ Recycling of Non-Ferrous Metals



Brass Ingots & Billets



Brass Extruded Rods



Brass Sheets & Circles



Brass Fittings



Copper-Based Alloys



Recycling of  
Non-Ferrous Metals

## INDUSTRIES WE SERVE



Automotive



Oil & Gas



Plumbing &  
Sanitary



Furniture



Defence



# OUR PRODUCTS PROFILE!

## OUR PRODUCT PROFILE

| MATERIAL DESCRIPTION                             | Standard Specifications                                                                   | Copper %     | Lead %                                                                                     | Tin %      | Iron / Al % (Max)                                                                            | Manganese %              | Other Elements %                                                                                | Zinc %  | Physical Properties          |                    |
|--------------------------------------------------|-------------------------------------------------------------------------------------------|--------------|--------------------------------------------------------------------------------------------|------------|----------------------------------------------------------------------------------------------|--------------------------|-------------------------------------------------------------------------------------------------|---------|------------------------------|--------------------|
|                                                  |                                                                                           |              |                                                                                            |            |                                                                                              |                          |                                                                                                 |         | T/S (Min) Kg/mm <sup>2</sup> | Elongation % (Min) |
| FORGING BRASS RODS FOR LPG VALVES                | IS 8737 (AMD No. 2)                                                                       | 56.5 to 60   | 1.0 to 2.0                                                                                 | -          | Fe 0.30                                                                                      | 0.5 % (Min)              | 0.75 Max (Incl. Fe)                                                                             | Balance | 42                           | 20 (izod 2.2 kgfm) |
| FREE CUTTING BRASS RODS / HOLLOW (TYPE I)        | IS : 319/89 / BSS : 249<br>EQUV : BS2874 / 86<br>CZ 121 Pb3 / UNS 38500                   | 56 to 59     | 2.0 to 3.5                                                                                 | -          | Fe 0.35                                                                                      | -                        | 0.7 Max                                                                                         | Balance | 39                           | 15                 |
| FREE CUTTING BRASS RODS / HOLLOW (TYPE II)       | IS : 319 / 89 / Type II<br>EQUV : BS 2874/ 86<br>CZ 121 / UNS 36000                       | 60 to 63     | 2 to 3.5                                                                                   | -          | Fe 0.35                                                                                      | -                        | 0.5 Max                                                                                         | Balance | 39                           | 15                 |
| FORGING BRASS RODS                               | BSS : 218<br>EQUV : BS 2874/86 CZ122<br>CUZn42Pb2                                         | 56 to 60     | 1 to 2.0                                                                                   | -          | Fe 0.30                                                                                      | -                        | 0.5 Max                                                                                         | Balance | 35                           | 25                 |
| FORGING BRASS RODS                               | IS : 6912 FLB                                                                             | 56.5 to 60   | 0.6 to 2.0                                                                                 | -          | Fe 0.30                                                                                      | 0.2 Max                  | 0.25 Max                                                                                        | Balance | 32                           | 25                 |
| FORGING BRASS RODS                               | BS 218 M                                                                                  | 56.50- 60    | 1.0- 1.5                                                                                   | -          | 0.30 max                                                                                     | 0.50 max                 | 0.5 max                                                                                         | Balance | 32                           | 25                 |
| RIVETING BRASS RODS / WIRES (LEAD FREE)          | BS : 2874/86 CZ 109<br>EQUV : IS 4170/87 CUZn 40                                          | 59 to 62     | -                                                                                          | -          | -                                                                                            | -                        | 0.3 Max                                                                                         | Balance | 35                           | 25                 |
|                                                  | IS : 4413/81 CUZn 37<br>EQUV : BS2873/86 CZ 108                                           | 62 to 65     | 0.30 Max                                                                                   | -          | 0.10 Max                                                                                     | -                        | 0.6 Max                                                                                         | Balance | 45                           | 35                 |
| BRASS WIRES (LEADED)                             | IS : 2704/83 CuZn35Pb1                                                                    | 62 to 65     | 0.75 to 1.5                                                                                | -          | 0.01 Max                                                                                     | -                        | 0.5 Max                                                                                         | Balance | 40 to 49                     | 20                 |
| HIGH TENSILE BRASS RODS I CZ 115                 | IS : 320/80 Alloy 1                                                                       | 56 to 58.5   | 0.2 to 1.5                                                                                 | 0.6 to 1.1 | Fe 0.25 to 1.20<br>Al 0.2 Max                                                                | 0.3 to 2.0               | 0.5 Max                                                                                         | Remn.   | 47                           | 20                 |
|                                                  | BS : 1001                                                                                 | 56 to 60     | 0.5 to 1.5                                                                                 | 0.6 to 1.1 | Fe 0.5 to 1.2<br>Al 0.2 Max                                                                  | 0.3 to 2.0               | 0.5 Max                                                                                         | Remn.   | 47                           | 20                 |
| HIGH TENSILE BRASS RODS II CZ 114                | IS : 320/80 Alloy 2                                                                       | 56 to 58.5   | 0.5 to 1.5                                                                                 | 0.2 to 0.8 | Fe 0.3 to 1<br>Al 1.5 % Max                                                                  | 0.5 to 2.0               | 0.5 Max                                                                                         | Remn.   | 53                           | 18                 |
| NAVAL BRASS RODS GRADE I                         | IS : 291/77 Gr-I UNS 46700<br>BS2874 CZ 112                                               | 61 to 64     | 0.20 Max                                                                                   | 1.0 to 1.5 | Fe 0.1 Max                                                                                   | -                        | 0.2 Max                                                                                         | Remn.   | 40                           | 20                 |
| NAVAL BRASS RODS GRADE II                        | IS : 291/77 Gr - II /<br>UNS 648200                                                       | 59.0 to 62.0 | 0.5 to 1.0                                                                                 | 0.5 to 1.0 | Fe 0.1 Max                                                                                   | -                        | 0.2 Max                                                                                         | Remn.   | 40                           | 15                 |
| ALUMINIUM SI. BRONZE                             | BS 2874 / 86 CA 104<br>IS 6912 FABS                                                       | Bal.         | 0.05 Max                                                                                   | 0.2 Max    | Fe 0.3 Max<br>Al 6.3/6.6                                                                     | mn 0.1 max<br>Si 1.5/2.2 | 0.5 Max                                                                                         | 0.5 Max | 550 MPA                      | 18                 |
| COLD HEADING BRASS                               | DTD 627                                                                                   | 61/63        | 1.5 / 2.5                                                                                  | -          | -                                                                                            | -                        | 0.5 Max                                                                                         | Bal.    | 37                           | 22                 |
| COPPER RODS, TUBES, FLATS & SECTIONS - ETP GRADE | IS : 1387 ETP ASTM B115                                                                   | 99.95 % Min. | -                                                                                          | -          | -                                                                                            | -                        | 0.05 Max                                                                                        | -       | 23/29                        | 33                 |
| BRASS TUBES                                      | IS : 407                                                                                  | 59/63        | 0.8                                                                                        | Ar 0.06    | Fe 0.07                                                                                      | -                        | 0.3 Max                                                                                         | -       | -                            | -                  |
| SHAPE                                            |  ROUND |              |  SQUARE |            |  HEXAGON |                          |  RECTANGLE |         |                              |                    |
| SIZE                                             | 6 to 80 mm. Dia                                                                           |              | 6 to 75 mm. A/F                                                                            |            | 6 to 75 mm. A/F                                                                              |                          | Width 6 to 200 mm x Thickness 3 to 50 mm                                                        |         |                              |                    |

# MANUFACTURING PROCESS



Incoming raw material is tested in laboratory and then issued to melting shop. Raw material is molten and cast in water cooled moulds. The cast logs are cut into Billets of suitable length. These Billets are pre-heated to proper extrusion temper and extruded into mother tubes/shells/rods/sections. These mother tubes (shells)/rods/sections/ undergo pickling, if required. Then undergo pointing, cold drawing and if required intermediate annealing. The tubes / rods / sections are straightened. Tubes undergo Eddy current testing / hydrostatic testing. The products undergo annealing if customer requires them in soft temper or drawn further if required in half hard/hard temper. The finished products undergo visual check, dimensional check, flaring, flattening test. Physical properties and grain size test are also carried out before packing and dispatch.



## QUALITY ASSURED AT EVERY STEP

Rigorous testing and inspection ensure consistent quality.



## ADVANCED TECHNOLOGY

State-of-the-art equipment for precision and efficiency.



## MULTI-STAGE TESTING

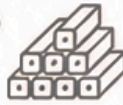
Comprehensive testing for superior performance.



## SAFE PACKING & DISPATCH

Secure packaging to ensure safe delivery.

01



Raw Material

02



Quality Check

03



Melting

04



Quality check

05



Casting

06



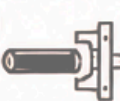
Billet cutting

07



Billet Heating

08



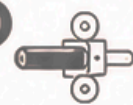
Extrusion

09



Pointing

10



Cold Drawing

11



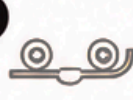
Annealing if required

12



Pickling

13



Straightening / Reeling

14



N D Testing

15



Mechanical Testing

16



Visual Inspection

17



Packing

18



Dispatch



Our commitment to quality, advanced technology and skilled expertise ensures that we deliver copper products of unmatched quality and reliability.



# MELTING SECTION



## Copper & Brass casting into water cooled moulds

Molten copper and brass are carefully cast into water cooled moulds to ensure uniformity, strength and excellent metallurgical properties.



## Cast logs of copper and copper alloy

High quality cast logs produced with controlled chemical composition and superior finish.



## Billet Cutting Machine

Can cut billets upto **200 mm** diameter.



## Billets

of Copper and Copper Alloy



# EXTRUSION SHOP



## EXTRUSION PRESS



### THE CONTINUOUS EXTRUSION PROCESS

At GMI, we use the Continuous Extrusion process, which is a unique process for copper/brass. Oxygen Free Rods are used as feedstock into the Continuous Extrusion machine. The copper rod is passed into the rotating extrusion wheel and fed into the extrusion zone, where pressure and temperature encourage the material to plasticize, making it available for extrusion. At this point the material is introduced into a die chamber and is forced to extrude through a die suitably designed for the section required. The pressure and temperature required for extrusion are principally generated by main drive motor, which turns the extrusion wheel. The copper/brass rod is extruded to size, as per customer's specification such as bars, rods, profiles. While hot, the copper is quenched directly to water, resulting in grain structure, a process superior to any other, which prevents oxidation of the surface.

### THE PROCESS

01



#### BILLET HEATING FURNACE

Billets are heated in a controlled furnace with a preheating zone.

02



#### ROD FEED & EXTRUSION

The copper/brass rod is fed into the rotating wheel and forced through a die under high pressure.

03



#### EXTRUDED PRODUCT

Extruded to the required size and quenched in water for superior grain structure.



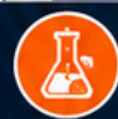
# PHYSICAL LABORATORY



**COMPUTERISED UNIVERSAL TESTING MACHINE**  
20 ton capacity



**HARDNESS TESTING MACHINE**



**FIE UNIVERSAL TESTING MACHINE**

# CHEMICAL LABORATORY



**QUALITY YOU  
CAN TRUST**

Our Copper products are the best for their un-compromised quality and superior reliability. This is a result of tough, stringent standards, and an unwavering commitment to -quality in every area of our business. In critical areas of quality assurance and R&D, we ensure strict control and compliance to stringent testing procedures. Our manufacturing method combines advanced technology and human skill, operating within a quality system which leads us to produce superior quality products.



**We provide NABL lab  
test certificates.**

# MEMBERSHIP & ASSOCIATIONS

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Metal Recycling Association of India  
(MRAI)



Bombay Metal Exchange  
(BME)



Bombay Non-Ferrous Metal Association  
(BNMA)



ISO certified

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With decades of industry expertise, modern infrastructure, and a commitment to sustainable growth, we continue to deliver high-quality non-ferrous metal solutions to industries across India.



# OFFICE & FACTORIES



OFFICE



FACTORY



FACTORY



UPCOMING FACTORY , MIDC BHANDARA





# BUILDING RELATIONS

## BEYOND IMAGINATION

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### GOVIND METALS PRIVATE LIMITED

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**Govind metals private limited**

KH No 741/1, 13 - Shivaji Ward, Varti Road,  
Pingalia, Bhandara -441904 (M.H)

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**Mobile Number:** +91 84840 67072, **Website:** [www.govindmetals.com](http://www.govindmetals.com)

**Email ID:** [govindmetalsprivatelimited@gmail.com](mailto:govindmetalsprivatelimited@gmail.com),  
[mail@govindmetals.com](mailto:mail@govindmetals.com)

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**Nagpur Office:** 201, 1st Floor, Brijbhumi Complex,  
Near Telephone Exchange Square, C.A. Road,  
Nagpur. (M.S.)

