

SANAYI VE TICARET A.S.

Address: Akçaburgaz Mah.3124 Sokak No:4 Esenyurt 34522 İSTANBUL,TURKEY Tel:+90 212 886 84 07-08-09 Fax: +90 212 886 24 79-886 85 33 E-mail: info@orjinalmetal.com Taxation ID-No: Marmara Kurumlar-336 006 2705 Trade Registration No: 162811 Customer Services : +90 212 444 0 450

Orjinal Metal Turkey since 1979



BRASS RODS

Technology and History

Facility and Process

Products by Purpose

Quality

Standard Production Range

Rod Pointing & Chamfering-Delivery-Packing

Contact Details

www.orjinalmetal.com

TECHNOLOGY AND HISTORY SINCE 1979

Since it was established in 1979, Orjinal Metal has remained the leading company in the Turkish brass manufacturing industry. With its extensive experience, advanced technology, first-class experts, and production facility, Orjinal Metal has contributed to a higher quality of life through the supply of materials to a diverse range of industries.



Orjinal Metal operates in its own facility with about 24.000m2 in Istanbul .Production capacity is about 48,000 tons of products annually.

PRODUCTION TECHNOLOGY

Orjinal Metal produces a full range of high-quality brass rods and brass profiles in its integrated production system. From casting, to chamfering, to inspection under strict quality control procedures, the Company focuses on quality from start to finish.

Furthermore, using state-of-the-art facilities such as a 4,000 ton extruding press with indirect heater, rod blocks, and a combined machine, the company can produce brass rods from 8mm to 100mm in diameter, with high production capability and flexibility. Bars are widely used in bolts and nuts, valves, various machinery and electric parts, and accessory components for automobiles and industrial equipment.

Horizontal Continuous Caster

- Horizontal continuous casting process has large amount of production and quality improvement.
- H.C.C. capacity is 4,000MT/month.

4,000 Tons Press

• With 2 automatic extrusion press(1,600Tons&1,200Tons) continuously produces a variety of high quality brass rods.

Combined Drawing Machine

• Shumag combined drawing machines are used for mid- and small-size of brass rod processing.



FACILITY & PROCESS

BILLET HEATING EXTRUDING COIL PICKLING CDM DRAWING PACKING

BAR PICKLING BAR DRAWING STRESS RELIEF, PICKLING STRAIGHTENING CUTTING CHAMFERING PACKING





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PRODUCTS BY PURPOSE

Forging Brass Rod

Forgings and Pressings of all kinds

Application: Valve, plumbing parts (union), machinery parts, burner head, etc.

Free Cutting Brass Rod

High machining, roll threading, and knurling

Application: Screw machine parts, bolts, nuts, valve, machinery parts, etc.

QUALITY

Quality Performance

Orjinal Metal maintains its own laboratory with calibrated equipment and with professional staff to ensure delivery of quality machined products to the requested specification. Our laboratory tests include mainly:

- Comprehensive laboratory for quality test and improvement
- Durometer&Brinell Hardness (HB)
- Spectrometer&Spectral analysis of base alloys
- Universal testing machine
- Tensile testing machine (elongation, yield point, tensile strength)
- Measurement Machine&Thickness measurement with high sensitivity
- Optical Microscope&Microscopic analysis
- ISO 9001:2015& ISO 14001:2015 & ISO 18001:2007 Certified
- RoHS &REACH compliance.



We are guaranteeing "quality" in our processes.

Quality system is in line with the quality standards at Orjinal Metal. We have quality, environmental and health/safety certification as ISO 14001:2004, ISO 9001:2008 and OHSAS 18001:2007. As well as complying with the ISO14001 standard certification, we have already implemented a "Green Procurement" program, enabling Orjinal Metal to manufacture environmentally friendly products compliant with RoHS&REACH directive.

STANDARD PRODUCTION RANGE

SELECTING THE CORRECT BRASS FOR A GIVEN APPLICATION

To the unknowing eye, brass is brass. But we in the industry know there are many variables in brass alloys which are used in wide ranging applications. In order to effectively select the correct brass for a given application, critical attributes of the final product have to be considered, including:

- End Use Application Does the application require leaded, low lead or lead-free* brass. Is the product for a mechanical, ornamental, electrical, potable water conveyance, medical or others?
- Chemical Properties There are many variations of brass alloys because some applications may require additional elements added which can make the brass alloy better suited for the specific application.
- Mechanical Properties What is the necessary tensile strength, rockwell, elongation and yield strength required in the final product?
- Machinability The machinability of the brass alloy may be a cost driver to the final product.
- Aesthetics If important, different alloying elements may change the color of the finished product.
- Antimicrobial- Did you know that certain brass alloys, depending on the chemistry mixture, may be considered antimicrobial?

Given that brass is a mixture of mainly copper and zinc, other elements like lead, silicon, bismuth, phosphorous, arsenic and many other elements are used to create different brass alloys. With all the combinations and percentages of each element there are hundreds of brass alloys for many applications.

Orjinal Metal produces 9 different brass alloys which are utilized in a variety of applications including: Industrial, Transportation, Building & Household, Plumbing, Electrical, Medical and other applications.

ALLOYS

CW614N, CW617N, CW602N, CW603N, CW606N, CW607N, CW608N, CW611N, CW612N. Other alloys upon request

LEADED BRASS

CuZn39Pb3 /39Pb2 /40Pb2 /39Pb1.7 EN 12164/167/ EN 1652: CW614N/CW612N/CW617N ASTM B435 NFL 14710

COMPOSITION:

	Cu	AI	As	Fe	Mn	Ni	Pb	Sn	Zn	Others
CuZn39Pb3	57 / 59	≤ 0.05	-	≤ 0.3	-	≤ 0.3	2.5 / 3.5	≤ 0.3	Remainder	≤ 0.2
CuZn39Pb2	59/ 60	≤ 0.05	-	≤ 0.3	-	≤ 0.3	1.6 / 2.5	≤ 0.3	Remainder	≤ 0.2
CuZn40Pb2	57/ 59	≤ 0.05	-	≤ 0.3	-	≤ 0.3	1.6 / 2.5	≤ 0.3	Remainder	≤ 0.2

FORM AND SIZES AVAILABLE:

Brass Rods	Dia. Ø (A mm) ROUND BRASS ROD	Width(A mm) SQUARE BRASS ROD	Width(A mm) HEXAGONAL BRASS ROD	ROUND BRASS ROD	Length(meter) SQUARE BRASS ROD	HEXAGONAL BRASS ROD
Drawn brass rods for Free Machining	min 8-max 50	min 12-max 40	min 8-max 40	min 2-max 4	min 2-max 4	min 2-max 4
Extruded brass rods for Hot Stamping	min 12-max 110	On request.	min 12-max 40	min 2-max 4	min 2-max 4	min 2-max 4

***Special lengths: Subject to technical feasibility.

MATERIAL DIMENSIONAL TOLERANCES

TOLERANCESS ON DIAMETER OF ROUND ROD Ref. EN12165:16					
Nominal di	ameter (mm)	TOLERANCES			
Over	up to and including	Class A			
8	10	+0/- 0.06	O.D.		
10	18	+0/- 0.07			
18	30	+0/- 0.08	,		
30	50	+0/- 0.16			
50	80	+0/- 0.19			

TOLERANCESS ON WIDTH ACROSS- HEXAGONAL ROD Ref. EN12164:16

	ameter (mm) up to and including	TOLERANCES
8	10	+0/- 0.09
10	18	+0/- 0.11
18	30	+0/- 0.13
30	50	+0/- 0.16

***Special Tolerances upon request

ROD POINTING & CHAMFERING

Brass rods are available with shaped ends (chamfered/pointed) according to international standards or upon agreement.

***Special ends: Subject to technical feasibility.

DELIVERY PERFORMANCE

Around 20 days after placing order.

PACKING

Bundles of about 1000 kg tied up with steel straps, with or without corrugated paper depending on the size .Special Packaging (wooden cases or different weights) to be agreed upon. A special serial number on each package guarantees product traceability. ***Special packaging requirements: Subject to technical feasibility.

OFFICIAL COMPANY DETAILS

Company Name	: Orjinal Metal Ürünleri San. ve Tic. A.Ş.	
Address	: Akcaburgaz Mah. 3124. Sokak, No:4 Esenyurt	
ZIP Code	: 34522	
City-Country	: Istanbul-Turkey	
Tel	: +90 212 444 0450/ +90 212 886 8407/08/09	
Fax	: +90 212 8868280 /212 886 85 33	
Website	: <u>http://www.orjinalmetal.com</u>	
Trade Registration No	: 162811(Chamber of Commerce-Istanbul)	
Taxation No	: Marmara Kurumlar-336 006 2705	



PEOPLE

Orjinal Metal, as manufacturer of copper alloy as brass rod, brass profiles and brass billets aims to achieve industry leadership by delivering high quality, competitively priced products on time with excellent organization. This is accomplished through continuous improvements in products and processes while working closely with employees, customers and suppliers.

CONTACT DETAILS

Mr. Adil Kaplan	Mr. Mustafa Kurt	Mr. Ayhan Yıldızeli
Export Sales Manager	Purchasing Manager	General Manager
Tel: +90 212 4440450 / 121	Tel: +90 212 4440450/161	Tel: +90 212 4440450/126
E-mail: adil.kaplan@orjinalmetal.com	E-mail: <u>mustafa.kurt@orjinalmetal.com</u>	E-mail:ayhan.yildizeli@orjinalmetal.com

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