Luoyang Hengzheng Copper Co.,Ltd

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Luoyang Hengzheng copper Co., Ltd, located in the Chinese ancient city – Luoyang. Own 20 years design, machining, manufacturing experiences in all kinds of copper deep processing products; HZC is keeping exploring new areas and have good relationships with the scientific research institutions. HZC are the industry leader in producing copper cooling elements and equipment used in the iron & steel and non-ferrous metal metallurgy fields, shipbuilding and nuclear power fields. At present we are the strategic partner with Tenova Group, Saint-Gobain , Baoji Titanium Industry Co., Ltd, Sunrui Titanium Precision Casting Co., Ltd, ALD Vacuum Technology, Clyde Bergemann Power Group, China Nuclear Power Technology Research Institute etc.

HZC have many advantages and rich experience in manufacturing copper cooling elements and electrode products.

Raw material advantages: Have various sources in complex copper alloys supplies, such as Cr-Cu, Cu-Cr-Zr, bronze, cupronickel etc. We can also customize complex brands copper casting pieces with advantage-raw material: hot rolled wide thick copper slabs produced by Chinalco Luoyang copper; unique brand of TU1/TU2/TAG0.1/T2/TP2; other brands include brass, bronze and cupronickel alloys. The max thickness 140mm, the max depth 3000mm, the max length 6000mm. The max length of the cutting copper bar can reach 12m. The ingots are reliable and of steady supply, casted from cathode copper. Copper rube and bar: the max diameter is 420 mm, the biggest wall thickness 80 mm of the extrusion tube; the max diameter is 360 mm, the biggest wall thickness 10 mm of the drawn tube; the max diameter is 300 mm of extruding bar and the diameter is 180 mm of the drawn bar. Having closed cooperation with many manufacturing factories, enjoying the preferential prices. Keep industry advantage in the forging copper prices.

Cooperate Partner

**Copper Cooling elements in metallurgy:**
1. Blast furnace Copper cooling stave for steel making
2. Copper cooling jackets and other elements (Outlet, Chute, flue Resistance splash plate...) for non-ferrous metal (Cu, Ni, Pb, Zn, PGM, Ag, Au, Ferro alloy etc.) smelting furnace: Ausmet, Isa furnace, Watts furnace, top-blowing furnace, bottom blowing furnace, flash smelting furnace, submerged arc furnace, KIVCET, Ferronickel electric furnace etc.
3. Cold hearth, copper cooling bed, platform for electronic gun for EB furnace (EBCHR, EBCHM), PACHM.
4. Copper contact shoe and Pressure rings for SAF submerged arc furnace Ferro alloy smelting, copper electrode holder head and electrode plate.
5. Water cooling copper crucible and molds for VAR (Vacuum Arc Remelting), ESSR and ESR (Electroslag Remelting) Furnace, EBCHM and PACHM furnace water cooling Flat ingot molds (crystallizer)

**Chemical:** Copper Shell Coal gasification burner, copper flange, Copper nozzle

**Nuclear:** Core test section of CHF (critical heat flux) test setup for the study on IVR (In-Vessel Retention) strategy

**Others:** Copper heating coil, Copper bush, Copper alloy welding pieces, Copper end ring, Copper pressure ring, Machining precision Brasses, Non-standard design copper parts, Tough pitch copper forging piece etc.
Contact shoes and Copper pressure ring for Submerged arc furnace—Ferro alloy smelting
EB Furnace (EBCHM) Cold hearth parts-HZC successfully produced the copper cold hearth core parts of ALD EB furnace, and optimized design of water channels. The products is produced by forging and machining process.

The cold hearth is mainly used for EBCHM Furnace to remelting and refining refractory and reactive metals.
Water cooled copper molds and dovetail groove of EB furnace (EBCHR).

EB furnace is mainly employed for the production of refractory and reactive metals (tantalum, niobium, molybdenum, tungsten, vanadium, hafnium, zirconium, titanium) and their alloys.

Pressure platform of electronic gun EB Furnace (EBCHR)
Copper crystallizer molds for Furnace VAR, ESR, ESSR, Skull furnace. Copper crucible is used for special steel and Titanium & Alloy smelting.
Copper crystallizer molds for Furnace VAR, ESR, ESSR, Skull furnace. Copper crucible is used for special steel and Titanium & Alloy smelting.
Copper electrode rods for Furnace VAR, ESR, ESSR, Skull furnace. Copper electrode rods is used for special steel, Titanium & Alloy and refractory and reactive metals smelting.
Copper crystallizer, copper crucible & molds for non-ferrous and ferrous metallurgy.
Copper electrode holder head and water cooling electrode plate are used for steelmaking arc furnaces. The electrode holder head is produced in uni-body by forging and machining process. The working life is five to six times longer than by casting process.
HZC blast furnace copper cooling staves’ working life is five to six times longer than by casting process. We choose cold-rolled sheet as material and then deep hole drilling, welding, welds inspection, pressure and ultrasonic test.
Copper water cooling jackets: copper chute, slag tap jackets, copper flue etc. cooling elements for metallurgy furnace (AUSMELT, ISAsmelt, Flash furnace, KIVCET, Flash converting furnace, Rich oxygen side-blown and top-blown furnace, Lead & zinc smelting furnace etc.) HZC jackets are produced by forging and machining process. The working life is five to six times longer than by casting process.
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HZC designed and produced the core test section of CHF (critical heat flux) test setup for the study on IVR (In-Vessel Retention) strategy—CGNPC China Guangdong Nuclear Power Corporation.
Round water cooling jacket and furnace top rings

Other equipment
Copper flange

Shell Coal gasification copper nozzle (startup burner) for gasification of coal
Copper cooling roof, copper electrode holder & clip, copper heat ring, copper electrode holder ring for Sapphire Production furnace
Monocrystalline and polycrystalline silicon copper electrode elements

- Monocrystalline and polycrystalline silicon copper electrode elements
- Water cooling cable
- Polycrystalline silicon reduction water cooling furnace electrode
- Polycrystalline silicon Hydrogenated furnace water cooling electrode
- Polysilicon ingot furnace copper electrode
Cooling system for Glass produce equipment  Adenauer

Cooling system for Glass produce equipment for Adenauer
1. Raw material: High quality copper slab from CHINALCO Luoyang Copper.

Largest hot rolling mill: Adopting German-made reversible cold & hot rolling mill, the largest production facility in non-ferrous metals industry in China, capable of producing copper slab: thickness 3-150mm, max. width 3.2m, weight 7.5t/pcs, capacity 20,000t/y.

2. Advanced updated machining equipment and process

Advanced CNC deep hole drilling.

boring miller

slot milling machine

3. Experienced in welding.

All welders have qualified as per DIN EN 287—3, certified by WTI/SLV Duisburg GmbH. HZC also have the SGS welding certificate.
4. Quality Test

pull-out test

Ultrasonic Testing

Ultrasonic Testing

Dye-penetrant inspection

Dye-penetrant inspection

Endoscopic detection channel

5. Site inspection Customers

Italy customers

CNGPC IVR Test setup

French customers

6. Production process of copper cooler stave and cooling jacket
**Hi-Q material:** using high quality copper materials from Luoyang Copper, which has steady source channel and competitive price. Have various sources in complex copper alloys supplies, such as Cr-Cu, Cu-Cr-Zr, bronze, cupronickel etc. We can also customize complex brands copper casting pieces with advantage-raw material: hot rolled wide thick copper slabs produced by Chinalco Luoyang copper; unique brand of TU1/TU2/TAG0.1/T2/TP2; other brands include brass, bronze and cupronickel alloys. The max thickness 140mm, the max depth 3000mm, the max length 6000mm. The max length of the cutting copper bar can reach 12m. The ingots are reliable and of steady supply, casted from cathode copper. Copper rube and bar: the max diameter is 420 mm, the biggest wall thickness 80 mm of the extrusion tube; the max diameter is 360 mm, the biggest wall thickness 10 mm of the drawn tube; the max diameter is 300 mm of extruding bar and the diameter is 180 mm of the drawn bar.

**Technical support:**

a. Experienced senior technical personals in the industry;
b. Solving puzzling questions professionally comprehensively and response speedily;
c. Rich experiences in Optimization of the drawings and drawing inversion of products;
d. Explore new convenient machining process and well know the manufacturing and machining process.

Adopt the most advanced melting & casting equipment and process, advanced CNC equipments. Experienced in welding. All welders have been qualified as per DIN EN 287—3, certified by WTI/SLV Duisburg GmbH.

Site inspection, the quality of the products get consistent high praise of clients.

Perfect, advanced quality assurance system, including raw material control, process inspection, final inspection and test etc. Reliability, innovation and development, providing the best quality products and services to every client.
DESIGNING

We have fully equipped Design & Drawing office with AutoCAD & printing facilities. A team of Engineers/Draftsman manages the Designing & Drawing unit. We also undertake the design of complete system for projects.

MANUFACTURING

We have complete manufacturing / Fabrication & testing facilities for all our products as Contact clamps, cooling elements, water cooled cable etc. Our workshop comprises of pneumatic hammers, cold/hot rolling machines, Heating/Annealing furnaces, planning machines, shaping machines, Lathe machines, Drill machines, hydraulic presses, TIG & MIG WELDING facilities.

ERECTION & COMMISSIONING

We have team of Engineers & skilled manpower to carry out Erection & Commissioning at Customers site.

For more information on Luoyang Hengzheng Copper Co.,Ltd call us at +86 379 64391187 or email us at info@lyhengzheng.com.