



CCM & Rolling Mill

AMK METALLURGICAL
MACHINERY GROUP CO.,LTD





· 企業簡介

江蘇艾米克冶金機械有限公司位於江蘇省無錫市，公司致力於生產和供應煉鋼廠、軋鋼廠、鐵合金廠和鑄造廠等使用的冶金機械設備和配件。

艾米克團隊多年來致力於技術調研、設計、生產和銷售。公司現擁有156個經驗豐富的員工，其中30多個工程技術人員。並且公司和中國多家一流生產商建立了合作關係，確保公司可以為客戶提供一站式供貨服務。

艾米克專注於快捷、耐心、專業和體貼的售後服務。顧客至上是我司的準則和發展基礎。艾米克團隊全年24小時聽候您的差遣。為了第一時間接受顧客的回饋，瞭解客戶的需求，艾米克在多國擁有當地代理。

艾米克正努力成為世界領先的一流供應商，不只是供應產品，更加是供應價值和誠信。以“品質、服務、價值”為信條，艾米克期待和海內外顧客建立長期互利的合作關係！



· About Us

AMK Metallurgical Machinery Group Co., Ltd is located in Wuxi, Jiangsu province. The company is specialized in producing and supplying metallurgical and mechanical equipments and spare parts for steel works, rolling mills, ferroalloy industries, foundries, etc.

AMK team members have been devoting themselves to technical research, design, production and sales for years. 156 professional and experienced employees including more than 30 technicians and engineers work as a team, we're also working with other Chinese domestic leading manufacturers. AMK is capable of One-Stop Supply for our customers worldwide.

AMK focuses on prompt, patient, professional and considerate after-sale service. Customer first is our principle and basis of development, AMK team is at your service 24/7. AMK is cooperating with global representatives to ensure more convenient communication and fast reaction to customers' feedbacks and demands.

AMK team is dedicated to being a world leading and trustworthy supplier who is not only supplying products but also supplying value and integrity. Guiding by the spirit of "Quality, Service, Value", AMK is looking forward to building long-term and mutually beneficial cooperation with partners and customers all around the world!



· Copper Mould Tube



Material of CCM Copper Mould Tube:

The materials of copper mould tubes should be the ones with good tensile strength, fatigue strength, proper hardness, low elongation and high heat conductivity coefficient. As a result, material like phosphorous deoxidize copper (DHP), CUAG, CR-ZR-CU are widely accepted by users of all countries.

Coatings:

Copper has lower hardness which leads to lower anti-abrasive property. Therefore, the area at the lower part of the moulds, where the stress increases drastically due to shells, will be more severely worn. To increase the life time of copper moulds, Uniform mould interior surface plating with suitable hardness is needed. Most of the copper mould tubes for small size billet casting are not used in any casting system where there are rigid casting stream support, therefore they are very sensitive to be worn. We use hard chrome plating to increase the life of mould tubes. The plating thickness will be controlled in the best range. As for the coating of copper mould plates, based on our years of experience, we are able to provide Cr coating, Ni-Cr coating, Ni-Fe coating and Ni-Cr coating to meet the demand of various customers both at home and abroad.

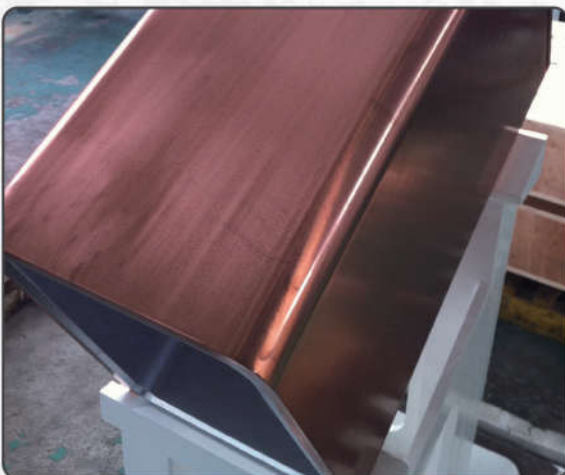


Name	Shape/Size	Item	Radius	Thick	Length	Remarks (Unit: mm)
Square & Rectangular Mould	Square 50x50 ~650x650 Rectangular (100~500)x650		3000 -17000	6~50	602-1100	Design with single taper, double Taper, triple taper, quadruple taper, parabolic taper, double parabolic taper, and various kinds of continuous taper
Round mould	Φ110-Φ1500		5000 -17000	10~50	700-900	Design with double taper, triple taper Multi-taper, parabolic taper and various kinds of continuous taper
Non-standard mould Beam blank mould	As per order		6000 -14000	12~50	700-1000	With single taper, double taper, triple taper, parabolic taper and various kinds of continuous taper



High-precision Copper Mould Tubes :

We can produce high-precision machining copper mould tubes with a little higher price than regular moulds. The high-precision moulds have higher precision of the external and internal sizes, which leads to even water gap between the moulds and water jackets, as a result the cooling effect is better and the life time of the moulds is longer.





Notice:

1. Please use the copper mould tubes within one year.
2. Please store the copper mould tubes in someplace dry and well ventilated.
3. Keep the copper mould tubes from acidic materials, especially the internal coating surface.
4. Polish the external surface of the copper mould tubes with sand paper if oxidized.
5. Pouring the molten steel to the center of the copper mould tubes.
6. Avoid internal surface scratch of the moulds caused by manual operation.

Material					
Item	Temp	Unit	Material		
			CuDHP	CuAg0.1	CuCrZr
Chemical Composition					
		P0.0.15~0.040	Ag0.08~0.12 P0.004~0.012	Cr0.30~1.20 Zr0.03~0.30	
Physical properties					
Electical conductivity	20	%IACS	83	95	80
Thermal conductivity	20	w/(m.k)	340	372	330
Coefficient of thermal expansion	20-300	10 ⁻⁶ /K	17.1	17.1	17.2
Recrystallisation temperature		°C	345	360	690
Modulus of elasticity	20	10 ³ MPa	120	123	126
Melting point		°C	1083	1083	1078
Specific gravity		g/cm ³	8.9	8.9	8.9
Mechanical properties					
Ultimate tensile strength	20	Mpa	240-310	240-310	375-445
Ultimate tensile strength	100	Mpa	190-270	230-270	365-425
Ultimate tensile strength	200	Mpa	140-190	205-240	365-410
Ultimate tensile strength	300	Mpa		175-210	335-375
Ultimate tensile strength	400	Mpa		145-160	315-350
0.2Yield point strength(Rp0.2)	20	Mpa	190-250	200-225	280-355
0.2Yield point strength(Rp0.2)	100	Mpa	185-260	195-240	270-345
0.2Yield point strength(Rp0.2)	200	Mpa		180-225	260-330
0.2Yield point strength(Rp0.2)	300	Mpa		165-215	250-320
0.2Yield point strength(Rp0.2)	400	Mpa		130-145	240-290
Elongation(A5)	20	%	25_10	16_10	20-13
Hardness	20	HB	80-95	110-125	115-130

Mark: TP2 (GB/T5231-2001) = SF-Cu/DHP-Cu(DIN1787)



Equipments :

To make sure the good quality and sufficient production capacity, we have 5 sets of large, medium and small hydraulic press,18 sets of CNC machine centers,2 sets special CNC processing machines, which can produce max. Dia.1500mm round tubes and max 3800x1000x70mm copper plates.





· Mould Assembly

Mould assemblies are key equipment for continuous casting. We produce round, square, rectangular and beam blank mould assemblies of different sizes with material of stainless steel and carbon steel. We have vertical and curved types in structure, the precision of mould assemblies are guaranteed as the forged stainless water jackets are produced by extrusion and machined by high precision CNC machines.



· Mould Assembly Spare parts





· Water Jackets

High precision water jackets along with convex type copper moulds could effectively improve the casting speed.

And not like copper mould tubes, good water jackets could be used for years.

We could design the drawing and manufacture the water jackets accordingly as per your requirements.



· *Spray tubes*



· *Spray Nozzles*



· *Continuous Caster Rollers*



· *Continuous Caster Components*



· *Straightening Rollers*



· *Dummy bar*

· **Coupling shaft**

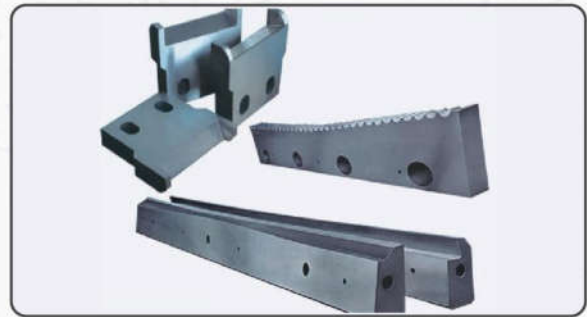
The universal coupling shaft is used to connect driving shaft and driven shaft of two different mechanisms, so that torque could be transferred.





· Metallurgical Blades

We supply shear blades in different materials, such as high-grade alloy tool steel, high-speed steel, carbide alloy, cladding steel and inserted steel. They have different profiles, such as rectangular, V-shaped, circular, curved and section. The products weigh from 10g to 600kg ,up to 1.5meters in diameter, 4.8 meters in length and IT4 class in machining precision. The blades are not only sold to all major Chinese steel plants but also exported to Japan, Germany and other countries.



· Stretch reducing and sizing rolls

Material: ductile cast iron, chilled cast iron and indefinite chill casting
Hardness: HSD 52~75(as per required)
Metallurgical structure : pearlite, bainite +carbide+ graphite
Manufacturing procedure: centrifugal and monoblock casting
Production capacity: 4000T/Year



· Rings for rod mills

Material: Alloy ductile iron
Hardness: HSD50~75(as per required)
Metallurgical structure : bainite,pearlite
Manufacturing procedure: centrifugal and monoblock casting



· Rolls for rod mills

Material: Alloy ductile iron, indefinite chill casting
Hardness: HSD 48~72(as per required)
Metallurgical structure : bainite
Manufacturing procedure: centrifugal and monoblock casting

*We supply hot rolling rolls as well as cold rolling rolls as per customers' requirements.
Forged and cast rolls are available with required materials.*



▪ Tungsten Carbide Roll Rings

High quality tungsten carbide roll rings for rolling mill are widely used as seal faces with resistant-wearing, high fracturing strength, high thermal conductivity, small thermal expansion coefficient. It is the best material to resist heat and fracture in all hard face materials.



Property :

- 1.High hardness & good wear resistance. Normal hardness reaches HRA 78-89, under temperature 600 ,beyond hardness of high speed steel
- 2.High elasticity modulus
- 3.High mechanical strength, compressive strength is up to 6000MN/M2
- 4.High density
- 5.Good thermal conductivity
- 6.Good corrosion& oxidation resistance

▪ Gear Shafts

Gear shaft is a mechanical part which support rotating parts for passing movement ,torque and flexural moment.

Production standard: DIN 3972,DIN867 Standard.

Material: According to customers' requirement.





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