

# ANSSEN Metallurgy Group Co.,Ltd



### **Rolling Mill Spare Parts**

- Rolling Mill Roll
- Gear Shaft & Gear Box
- TC Ring
- Coupling Spindle
- Rolling Guide
- Metallurgical Bearing

Service World Steel!

### 企業簡介

大連安森是一家致力于生産及設計軋機配件的綜合性企業。 工廠占地面積約5萬平方米, 擁有職工500餘人、技術人員30人、技術工程師8人,并有多名外國專家常年爲公司進行技術指導。我司技術總工參與了國内軋輥行業標準起草及制定。

我司生産裝備及工藝先進,檢測手段精細,真正做到原料至成品,層層把關。目前我司産品暢銷 全國10多家鋼鐵企業,并出口美國、巴西、俄羅斯、阿聯酋,沙特,斯裏蘭卡等多個國家,產品質量 及技術服務受到好評。

生産設備: 30噸電弧爐、60噸精煉爐、60噸真空爐各一臺,離心澆鑄機3臺、高低温電阻爐18座、淬火爐2座,各類數控車床、磨床、銑床、鎧床等50餘臺。

檢驗設備:超聲波探傷儀、光學金相顯微鏡、金相圖像顯微儀、碳硫分析儀、直讀光譜儀,以及布氏、洛氏硬度計、拉力試驗、衝撞試驗機等。

本公司重視售後服務,建立由銷售和技術人員組成的服務團隊,從售前的使用要求調查到售後的 使用情况跟踪、質量异議處理,對用户實施"一站式"服務。

"品質、創新、誠信、共贏"是安森始終如一的追求。

熱忱歡迎國内外新老用户洽談合作,竭誠爲廣大用户提供優質產品和良好服務。

### About Us

ANSSEN Metallurgy Group is specialized in designing & manufacturing spare parts for rolling mills.

Our plant covers an area of 50,000m<sup>2</sup>, has a total staff of 500, including 30 technicians, 8 technical engineers. We regularly invite knowledgeable foreign experts to enhance technical cooperation.

With advanced production technology and equipments, ANSSEN establishes strategic partner relationships with more than 10 domestic steel mills ,and export to Brazil , USA, Russia ,UAE ,Saudi Arabia etc , enjoys good reputation.

Major production equipments: EAF 30t, LF 60t, VD furnace 60t, 3 sets of centrifugal casting machines,

18 sets of high-low temp resistance furnaces, over 50 sets of NC machining lathes.

Major testing equipments : ultrasonic flaw detector, optical microscope, metallographic apparatus , reading

spectrometer, tensile& Impact testing machine.

After-sale- service: we set up professional service team which is made up of experienced sales and technical engineers.

ANSSEN's spirit: quality, innovation, credibility, win-win.





# 熱軋軋輥 I Hot Rolling Rolls



		/				/ /	* /		//		
	(10h)	Alloy CA.	Alloy, Alloy,	Pearlie roll	Baining Baining	High.	Alloy.	Adamii.	Hor or	High sp.	1104 18915 1885
Material code	IC	СС	SG	SGP	SGA	HCr	AS	AD	HCrS	HSS	/
Barrel hardess HSD	50-80	60-80	50-70	45-70	55-80	60-90	35-50	40-65	70-85	75-95	
Neck hardness HSD	35-55	35-55	35-55	35-55	32-45	32-45	45	50	35-45	35-45	
Tensil strength	160-350	150-350	320	450	350	350	650-800	500-800	450	700-900	

Roll type	Application	
Alloy Indefinite chilled roll	Intermediate &Finishing stand for section steel, wire rods , strip steel	
Alloy chilled cast iron roll	Finishing stand for section steel , wire rod , strip steel	
Alloy graphite roll	Roughing & Intermediate stand for Section steel , wire rod , strip stee	
Pearlitic nodular cast iron roll	Roughing & Intermediate stand for Section steel, wire rod , strip steel	
Bainitic nodular cast iron roll	Roughing & Intermediate & pre-Finishing stand for section steel, wire rod , strip steel; Sinking-sizing mill for seamless pipe	
High chrome cast iron roll	Finishing stand for section steel , wire rods, roughing & pre-Finishing for strip steel and plate rolling mill	
Alloy cast steel roll	Roughing stand for section steel , wire rods strip steel	
Adamite roll	Roughing & Intermediate stand for section steel, wire rod , strip ste vertical roll ,backup roll and roll rings	
High chrome steel roll	Roughing stand for steel strip, working roll for pre-finishing stand Work roll for medium plate rolling mill and uninersal rolling mill	
High speed steel roll	Pre-finishing stand for steel strip, wire rods , high speed wire rod , roll for universal rolling mill, work roll for medium plate rolling mill	

# 冷軋軋輥 I Cold Rolling Rolls

### **Material & Application**

Material type 軋輥類型	Application 應用	Hardness depth 工作層深度	
9Cr2Mo	For all kinds of forged roll	≥10mm	
86Cr2MoV7	For all kinds of forged roll	≥12mm	
9Cr3Mo	For work & Intermediate forged roll	≥15mm	
MC3	For work & Intermediate forged roll	≥20mm	
MC5	For work & Intermediate forged roll	≥25mm	
70Cr3Mo	For work & Backup forged roll	≥50mm	
45Cr5NiMoV	For work & Backup forged roll	≥75mm	





Material type 軋輥類型	Hardness 硬度	Hardness depth 工作層深度	Hardness deviation 硬度偏差
Working roll	70-100 HSD	10-50MM	+/-1 HSD
Intermediate roll	70-85 HSD	10-50MM	+/-1 HSD
Backup roll	60-80 HSD	10-75MM	+/-1.5 HSD



## 車間 I Working Shop



Casting

Heat treatment





Machining

Quality testing



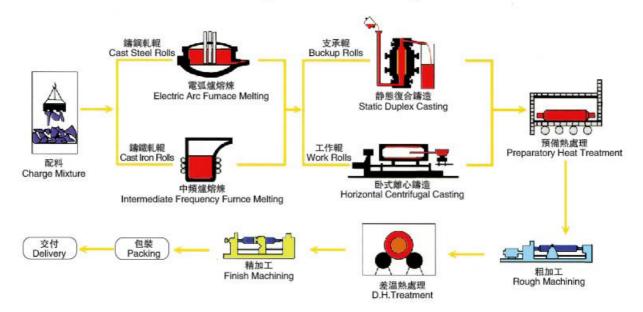


Packing

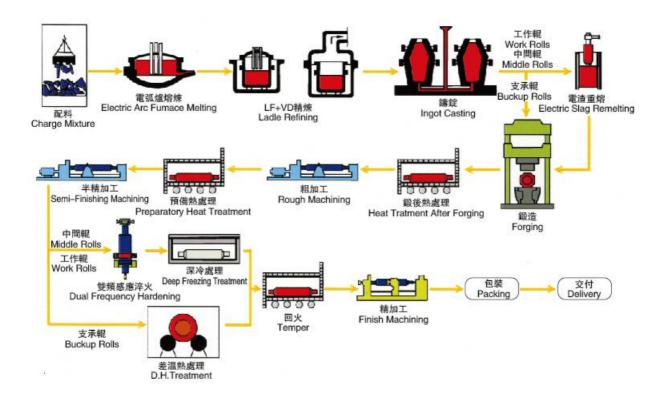
After service

# 生産工藝 I Manufacturing Process

#### **Manufacturing Process of Casting Rolls**



#### Manufacturing Process of Forged Rolls





### **輥環 Ⅰ T.C.Ring**

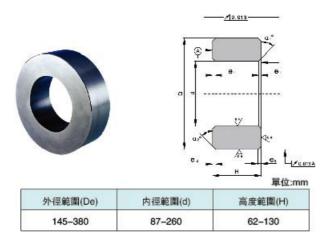


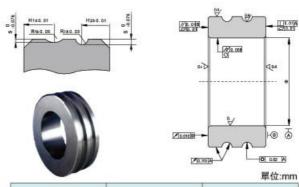




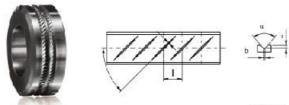
#### Property

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





外徑範圍(D)	内徑範圍(d)	高度範圍(H)		
145–380	87–260	62-130		



_	WINEE		單位:mn		
	外徑範圍(D)	内徑範圍(d)	高度範圍(H)		
	145-380	87-260	62-130		

#### Tolerances allowable for the O.D.,I.D,and Height of roll rings

單位·mm

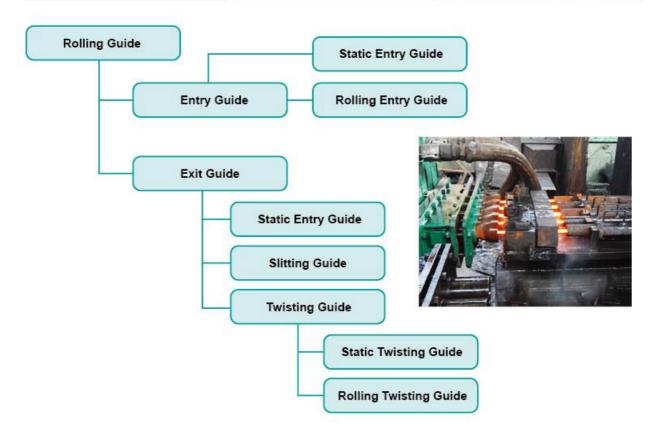
	07		rv.	單位:mm	
	外徑OD	≤200mm	外徑OD≤200mm		
類别/TYPE	較高級 Better grade	普通級 Normal grade	較高級 Better grade	普通級 Normal grade	
外徑極限偏差 Tolerance of OD	± 0.020	± 0.050	± 0.030	± 0.050	
外徑極限偏差 Tolerance of OD	+0.020	+0.035	+0.025	+0.050 0	
外徑極限偏差 Tolerance of OD	± 0.025	± 0.100	± 0.050	±0.100	

### 導衛 I Rolling Guide









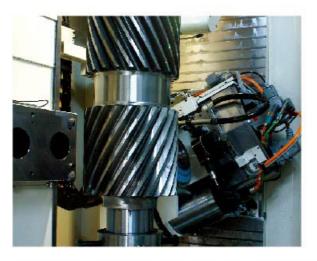
#### Highlights

- 1. For high speed bar and wire mill
- 2. Casting from stainless steel
- 3 .Easy installation
- 4 Superior Quality with strong Wear resistance
- 5 .Long working life





### 齒輪軸 | Gear Shafts & 减速箱 | Gear Box





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

High-grade alloy case hardened steel is used for the manufacture of gear, hardened and grinding gear surface has high precision and loading capacity.

Advantage: small volume, light weight, high carrying capacity, long life, high efficiency, low noise etc. Production standard: According to DIN 3972, DIN867 Standard. Material: According to the customer's requirement.





#### Gear Box Type:

I JK Series universal industrial gear box
II JH Series universal industrial gear box
III ZDY, ZLY,ZSY Series universal industrial gear box

#### Advantage:

The main components have been designed in use of modular with unique structure and simple appearance and then vertical or horizontal installation types can be realized.

High-grade alloy case-hardened steel is used for the manufacture of gear, gear surface has high accuracy and loading capacity.

It is convenient for use and maintenance while the rolling bearing has been used.

Natural cooling, cooling with internal cooler and forced lubrication can be used according to the demand.

Featuring with small volume, light weight, low noise and high reliability.

### 聯軸器 I Coupling Spindle

The spindles are the mechanical parts which are used to join the two shafts of the different institutions (the drive shaft and the driven shaft) and make them the co-rotation to transfer torque.





Product type	Swing diameter	Torque range KN.m	Application and characteristics
			Spindle of master drive of continuous hot roughing/ finishing mill;
Heavy-duty industrial		1430-15000	Spindle of master drive of medium/wide and heavy plate rolling mill;
universal shaft	600-1320		Copper-aluminium rolling mill master drive;
Heavy duty curved-tooth coupling			Spindle of master drive of seamless steel pipe punching machine /tube rolling mill;
			Spindle of master drive of bloomer;
			Heavy-duty machinery and equipment
Cross universal 100-680 coupling		5-1900	Bars, rod-rolling mills, steel pipe equipment, hoisting equipment, petroleum drilling
GSL long curved-tooth flexible coupling	200-760	30-1600	Specially applicable for rouging/intermediate /finishing rolling mill for alloy steel bars, H-steels, big coils, high-speed wires and so on, requiring a big flexibility and a compact axial structure
Piercing universal spindle	160-960	20-2500	
Special adjusting coupling	250-350		Special universal shaft for fine bar production line
Tooth coupling	-1860	-5040	Connection between shafts for different kinds of rotary machinery like gear cases , roller paths, hoists and compressors
Quick joint	315-620		Working with universal shaft, mainly for quick roll change, unloading and separation



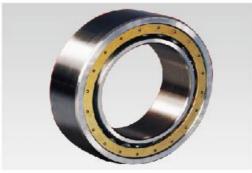
### 冶金軸承 | Metallurgical Bearing



Four Row Cylinder Roller Bearing



Deep Groove Ball Bearing



Self-Aligning Double-row Bearing



Double Row Angular Ball Bearing

#### **Bearing Application:**

Blast furnace: Feeding mechanism, conveying mechanism, shaking screen, sintering pallet

Converter : Converter trunnion, tilting equipment, speed reducer, crane

CCM : Ladle turret , electromagnetic stirring equipment, roller in the segment of caster

Rolling mill : Working roll, back-up roll, intermediate roll, conveying roller, straightener,

hydraulic roll screwdown, rolling guides



















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