



青岛鑫盛源轧辊有限公司  
Qingdao Xinshengyuan Roll Co., Ltd

# Qingdao XinShengYuan Roller Co.,Ltd





Qingdao XinShengYuan Roller Co.,Ltd is located in the haibin industry development zone in Qingdao. next to the Port of QingDao and expressway, conventient transportation. It covers an area of 20000 square meters, invested tens of millions RMB for construction. the company specializes in producing various types of hot -milled olled and cold-milled alloy rollers, catering to the needs of different industries in the domestic and international roller market, and is committed to building a high-quality roller manufacturing and research and development base in China. Forming a production capacity of 10000 tons of high-quality rolling rolls per year.

Our company adopt advanced centrifugal compound casting technology for rolls making,and has researched and establsihed a series of high quality rollers, the main products are chilled cast iron rolls, infinite chilled cast iron rolls, ductile iron rolls, high chromium cast iron rolls, semi-steel composite rolls, centrifugal composite rolls, semi-high-speed steel and high-speed steel rolls, It can meet the application of different rolling mills and is suitable for





rolling of various bars, wires, strips and profiles .Besides, the company insist on "first-class equipment, first-class technology, first-class management team " as the basic developing objectives, while we has been well equipped with the Advanced large-scale horizontal centrifuge machinery , sets of themedium frequency furnace and over 30 sets of advanced processing equipment like the lathe, grinding ,drilling and milling machinne etc,

Furthermore,the company also has equipped the world-advanced equipment for the quality control and new roller invented such as heat treatment , spectrometer and temperature control etc. the company had attracted a number of R & D talents which have years of manufacturing roller experience and formed a efficient and professional management team that contribute to lay a solid foundation for rapidly development of "XinShengYuan Roller" .

The company will insist on the .





## Classification of roller materials

Material	Indefinite Chill Centrifugal Roll								
Size	φ 200mm≤(body diametr)≤ φ 1200mm								
Parameter	(body hardness) 65-80HSD			(neck hardness) 32-45HSD			(tensile strength)≥ 350MPA		
Element	C%	Si%	Mn%	P%	S%	Ni%	Cr%	Mo%	Mg%
	2. 90-3. 60	0. 25-0. 80	0. 20-1. 00	≤0. 40	≤0. 08	2. 01-4. 50	0. 50-1. 50	0. 20-0. 60	
Mill stand	Section mills		Finished						
	H-shaped mills								
	Wire & rod mills		Middle Finished , Finished						
	Strip mills		Finished						
Description	Body has a higher surface hardness. As As the outer layer centrifugal casting, body chilled layer exists in small and dispersion graphite. The graphiteincreased slowly and evenly from surface to the inner, so that the chilled depth has no significant line. Thatroll hardness drop little and has good resistance to thermal cracking. At the same time the center has a higherintensity by separate nodulizing. With a high wear-resistant properties and anti-crack, anti-peeling,anti-prints capacity. These types of roll ensure that the plats surface quality and dimensional accuracy.								

Indefinite Chill Centrifugal Roll



Material	Spheroidal Graphitic Alloy roll (Pearlitic)								
Size	ϕ 200mm≤(body diametr)≤ ϕ 1200mm								
Parameter	(body hardness) 55-65 HSD			(neck hardness) 32-45HSD			(tensile strength)≥ 350MPA		
Element	C%	Si%	Mn%	P%	S%	Ni%	Cr%	Mo%	Mg%
	2. 90-3. 60	1. 40-2. 20	0. 40-1. 00	≤0. 40	≤0. 03	1. 50-2. 50	0. 30-1. 00	0. 20-0. 80	≥ 0. 04
Mill stand	Section mills		Middle						
	H-shaped mills								
	Wire & rod mills		Rough    Middle						
	Strip mills		Rough    Middle						
Description	Body has a higher surface hardness. As the outer centrifugalcasting, the hardness drop should be less than static cast roll. The strength of the core will be higher than the other cast roll.								

Spheroidal Graphitic Alloy roll (Pearlitic)





## Classification of roller materials

### High Speed Steel Rolls(B)



Material	High Speed Steel Rolls(B)								
Size	φ 200mm≤(body diameter)≤ φ 800mm								
Parameter	(body hardness) 65-75HSD			(neck hardness) 32-45HSD			(tensile strength) 700-900 MPA		
Element	C%	Si%	Mn%	W%	Cr%	Cu%	Cr%	Mo%	Ti%
	0.25-0.40	1.50-1.80	0.30-0.50	1.00-2.00	0.80-1.00	0.50-0.80	3.80-4.20	1.00-2.00	0.25-0.50
Mill stand	Section mills								
	H-shaped mills								
	Wire & rod mills		Pre Finished						
	Strip mills								
Description	Adopting bimetallic composite extrusion casting process, the structure is dense, with high red hardness, wear resistance, impact resistance, and processability. It is not easy to produce pockmarks, peeling, or slotting during use; It can reduce intermediate rolling waste caused by rapid wear of the rolling groove, thereby improving the yield of the product; Reduce the number of roll and groove changes to improve the operation rate of the rolling mill; Good wear resistance, able to effectively control negative deviation rolling.								



## Alloy Adamite Rolls

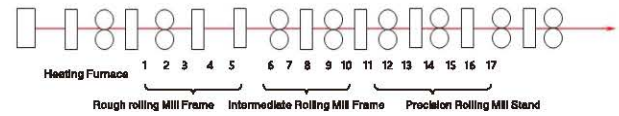
Material	Alloy Adamite Rolls								
Size	Φ 200mm≤(body diametr)≤ Φ 1200mm								
Parameter	(body hardness) 40 -55HSD			(neck hardness) 32-45HSD			(tensile strength) 500-700 MPA		
Element	C%	Si%	Mn%	P%	S%	Ni%	Cr%	Mo%	Mg%
	1.30-1.70 0	0.20-0.80	0.70-1.00	≤ 0.40	≤ 0.30	0.50-1.50	0.80-1.20	0.20-0.6 0	0.50- 1.50
Mill stand	Section mills								
	H-shaped mills		rough and medium milling						
	Wire & rod mills		rough and medium milling						
	Strip mills		rough and medium milling						
Description	Adamite roll is one kind of rolling materials whose performance is between steel roll and iron roll. It contains Ni, Cr and Mo elements, its matrix contains certain quantity of carbide which is processed with special thermal treatment technique with high abrasive resistance, strong toughness and good thermal resistance, its special characteristics is that there no hardness difference in working layer, applicable to rough milling and initial section of finishing mill for Tandem mill with steel; rough and medium milling of rod and wire milling machine, pre-finishing rack, universal mill, roll collar and roll jacket of cantilever mill.								



Material	Alloy Steel Rolls (60CrNiMnMo)								
Size	Φ 200mm≤(body diametr)≤ Φ 1200mm								
Parameter	(body hardness) 40-55HSD			(neck hardness) 32-45HSD			(tensile strength) 600-800 MPA		
Element	C%	Si%	Mn%	P%	S%	Ni%	Cr%	Mo%	Mg%
	0.55-0.65	0.20-0.45	0.70-1.80	≤0.40	≤0.30	0.20-0.60	1.20-2.20	0.20-0.60	≤0.40
Mill stand	Section mills								
	H-shaped mills		rough	milling					
	Wire & rod mills		rough	milling					
	Strip mills		rough	milling					
Description	Alloy cast steel roll is made of top-grademolten steel by arc furnace and advanced casting and technology of heating processing with high intensity, excellent thermal cracking resistance, toughness and abrasive resistance, applicable to rough and medium roll of profile steel, rough mill of hot rolled strip steel and supporting roll of hot rolled strip steel. Metallographic structure of roll is made of pearlite or tempered sorbite system.								

## Classification of roller applications

### Seamless steel pipe production line



### Performance and Application

Item	Material	Material Code	Hardness(HSD)	Application	Tensile Strength(N/mm2)
1	Alloy Steel	AS	40/50	1&2 Roughing Stands	600/750
2	Alloy Adamite Steel	AD	50/60	Roughing Stands	500/650
3	Pearlitic Nodular	SGP II	55/65	Roughing&Intermediate Stands	450/650
		SGP III	65/72	Intermediate & Finishing Stands	450/650
4	Acicular Nodular	SGA II	70/75	Finishing Stands	380/500
		SGA III	72/78	Finishing Stands	380/500

### Large&Medium Round Bar Mill---Round Bar Production

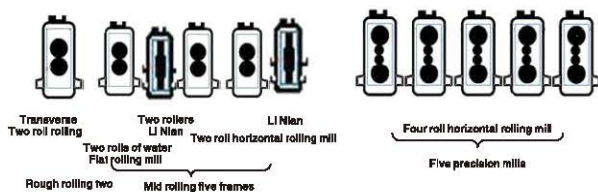


### Hot Strip Mill---Hot Strip Production



### Performance and Application

Material	Material Code	Hardness(HSD)	Application	Tensile Strength(N/mm2)
Alloy Adamite Steel	AD	50/60	Roughing Stands	500/650
Pearlitic Nodular	SGP II	55/65	Roughing& Intermediate Stands	450/650
	SGP III	65/72	Intermediate Stands	450/650
Indefinite Chill	ICIV	72/80	Finishing Stands	380/500
	ICV	75/85	Finishing Stands	380/500

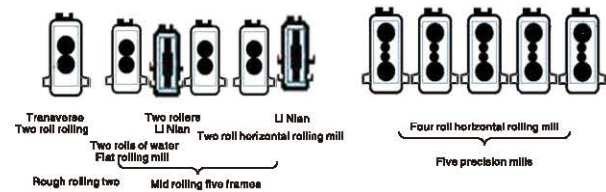




## Classification of roller applications



### Wire&Rod Mill---Rebar Production



### Performance and Application

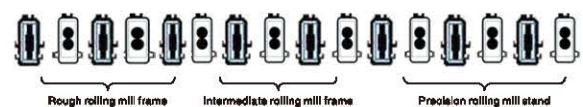
Item	Material	Material Code	Hardness (HSD)	Application	Tensile Strength(N/mm2)
1	Pearlitic Nodular	SGP I	45/55	Roughing Stands	450/650
		SGP II	55/65	Roughing& Intermediate Stands	450/650
		SGP III	65/72	Intermediate& Finishing Stands	450/650
2	Acicular Nodular	SGA I	60/70	Intermediate Stands	380/500
		SGA II	65/75	Intermediate& Finishing Stands	380/500
		SGA III	70/82	Finishing Stands	380/500
3	Indefinite Chill	ICIII	65/75	Intermediate& Finishing Stands	380/500
		ICIV	72/80	Finishing Stands	380/500
		ICV	75/85	Finishing Stands	380/500
4	High Speed Steel	HSS	75/88	Finishing Stands	380/500
5	High Boron Steel Rolls	HB	75/85	Finishing Stands	380/500



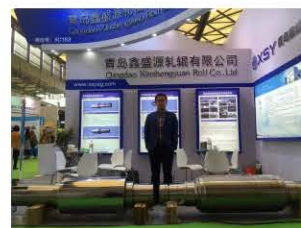
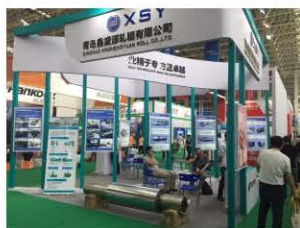
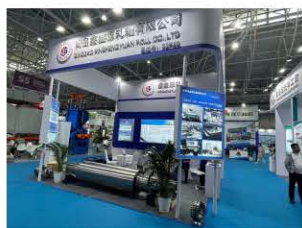
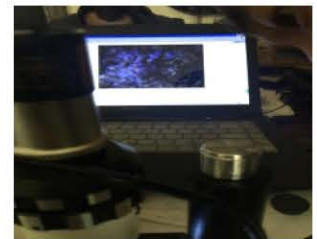
### Performance and Application

Item	Material	Material Code	Hardness(HSD)	Application	Tensile Strength(N/mm2)
1	Alloy Steel	AS	40/50	1&2 Roughing Stands	600/750
2	Alloy Adamite Steel	AD	50/60	Roughing Stands	500/650
3	Pearlitic Nodular	SGP II	55/65	Roughing & Intermediate Stands	450/650
		SGP III	65/72	Finishing & Universal Rolling Stands	450/650
4	Alloy Adamite Steel	AD	60/70	Universal Rolling Stands	700/900
5	Araphitic steel	GS	50/60	Universal Rolling Stands	700/900
6	Acicular Nodular	SGA II	60/70	Universal Rolling Stands	450/650
7	High Speed Steel	HSS	75/88	Universal Rolling Stands	700/900

### Section Mill---H Beam Steel Production



## Factory casting/processing/and quality inspection equipment





## Metalligical mill roller and ring



## Partners





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