

high speed steel roll

Product classification: high-speed steel rolls, reinforced high-speed steel rolls, high-strength high-speed steel rolls, super-strength high-speed steel rolls, split high-speed steel rolls, KOCKS roll rings, double high-bar roll rings, high-speed wire pre-finishing roll rings and clamps Roller ring and other series.

Unique advantages of the product:

- The high-speed steel roll material contains high alloy elements such as vanadium, tungsten, chromium, molybdenum, niobium, etc. The types of carbides in the roll structure are mainly MC type and M₂C type. Compared with ductile iron rolls and high-nickel-chromium rolls, the single-groove (time) steel passing is higher, which saves roll changing time, improves rolling mill operation rate, reduces roll consumption, reduces production costs, and improves the overall benefit of the factory.
- High-speed steel rolls have good thermal stability, and the roll surface has high hardness and good wear resistance at rolling temperature.
- The high-speed steel roll has good hardenability, and the hardness hardly decreases from the surface of the roll body to the inside of the working layer, thus ensuring that the roll has the same good wear resistance from the outside to the inside.
- During the use of the high-speed steel roll, under good cooling conditions, a thin and dense oxide film is formed on the surface of the roll body. This uniform, thin and dense oxide film can exist for a long time without falling off, making the high-speed steel roll wear-resistant. Sex is significantly improved.
- The high-speed steel roll material has a large expansion coefficient and good thermal conductivity. While the roll wears a small amount of the groove during the rolling process, the hole shape continues to become smaller due to the expansion of the high-speed steel material itself. Therefore, the high-speed steel roll is rolling. During the rolling process, the change of the rolling groove is small, and the consistency of the pass size is maintained for a long time, especially when rolling bars or rebars, it is more conducive to control the negative tolerance of the rolling material.
- Since the core of the centrifugal casting high-speed steel roll is made of alloy ductile iron material, the strength of the roll neck is high.

Application of high speed steel roll:

High-speed steel has only been used as a roll material for more than ten years. The reason why high-speed steel rolls are suitable for both plate and strip mills, wire and bar mills, and has achieved remarkable results is that high-speed steel has high wear resistance and hardenability, especially the red hardness at high temperature, make high-speed steel more suitable for use as a manufacturing material for rolls. At present, high-speed steel roll series products are widely used in:

- High-speed bar pre-finishing stand, finished product stand, finished product pre-rolling stand, pre-slicing stand, slitting stand of bar rolling mill
- High-speed wire rod mill pre-finishing mill
- Hot rolling narrow and medium wide steel rolling mill finishing line
- Finishing stand of spring flat steel mill and small section steel mills such as angle steel and channel steel

Effect

Compared with traditional ductile iron rolls and high-nickel-chromium rolls, high-speed steel rolls have higher steel passing per groove (times) due to their good wear resistance, which saves roll changing time, improves rolling mill operation rate, reduces roll consumption, and reduces production cost, and improve the overall efficiency of the factory. Generally, the amount of steel passing in a single groove (times) is 3 to 5 times that of cast iron rolls, and the total amount of passing steel can be guaranteed to be more than 4 times on average. The following table shows the use effect of high-speed steel rolls on continuous bar rolling mills:



HSS ROLLS



SLITTING HSS ROLLING SERIES



ENHANCED HIGH SPEED STEEL ROLLING SERIES



HIGH-STRENGTH HIGH-SPEED STEEL ROLLING SERIES

Product Specifications /mm	use rack	material	HSS ROLLS		
			Single-groove steel capacity /t	The amount of steel passing through a single group of grooves /t	Heavy vehicle grinding amount /mm
∅ 12 ribbed steel bars (five cuts)	finished product	HSS	≥350	/	6-7
	before finished product	HSS	≥720	/	6-7
	Segmentation	Slitting high speed steel	/	≥3200	6-7
	pre-sliced	HSS	/	≥3200	6-7
∅ 12 ribbed steel bar (double high bar)	16 frames (round hole)	HSS	≥1200	/	8-9
	15 racks (oval)	HSS	≥1200	/	8-9
	14 racks	Slitting high speed steel	/	≥4200	8-9
	13 racks	HSS	/	≥4200	8-9