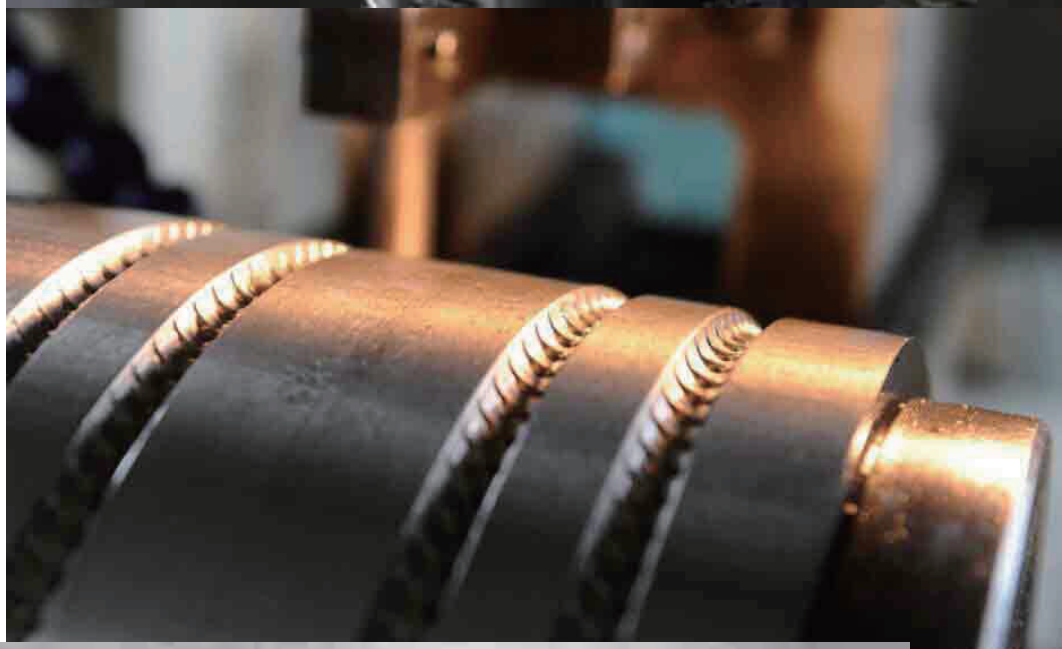

HOTION CEMENTED CARBIDE RINGS & COMPOSITE ROLLS

HOTION

Enhancing Your Productivity

With Tungsten Carbide Rings and Composite Rolls

Introduction

Tungsten carbide rings have good thermal conduction property. Compared with other materials, it is much better in terms of heat-resistance, wear-resistance and strength. What's more, its hardness reduces a little under the condition of high temperature. So, the tungsten carbide rings are invented with the appearance of high speed wire rod mill. With the development and improvement, it is widely applied in the production of high speed wire, bar and deformed steel bar.

Our products have the good comprehensive mechanical properties. The bending strength and impact toughness reach 2200 Mpa and (4-6)x 160J/m respectively. Its hardness and wear resistance are the primary factors, which are prior to wear-resistance. While there is low load and impact for the rear stands, we shall pay more attention to the wear-resistance and thermal fatigue resistance of roll rings.

HOTION INTERNATIONAL
Dedicate to metallurgical solutions and products

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Production Process

Tungsten Powder → **Ingredients** → **Compression Molding** → **Dewaxing** → **Sintering** → **Finishing machining**

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Table of Grades Recommended for Different Stands

Grade Series	Pre-finishing Rolling Mill				Finishing Rolling Mills										Sizing Mills			
	1	2	3	4	1	2	3	4	5	6	7	8	9	10	1	2	3	4
	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
HGR20																	○	○
HGR25													○	○			●	●
HGR30									○	○	○	○	●	●	○	○		
HGR40					●	●	○	○	●	●	●	●						
HGR45					○	○	●	●										
HGR55	●	●	○	○										▲				
HGR60	○	○	●	●										▲				
HR06														○	○	○	○	○
HR08													○	●				
HR10										○	○	○	●					
HR12							○	○	○	●	●	●						
HR14					○	○	●	●	●									

Note: ○ First ● Second ▲ Hot-rolled deformed steel bars

The Grades and Related Parameters of Cemented Carbide Roll Rings

Grade	W	Co Ni Cr	Density (g/cm^3)	Hardness ≥HRC	Bending Strength ≥N/mm^3	Compressive Strength ≥N/mm^3
HGR20	90	10	14.4±0.15	87.5	2400	3500
HGR25	88	12	14.3±0.15	86.5	2300	3400
HGR30	85	15	14.2±0.15	85.0	2700	3300
HGR40	82	18	13.7±0.15	83.5	2600	3200
HGR45	80	20	13.5±0.15	82.5	2500	3100
HGR55	75	25	13.1±0.15	80.0	2400	3000
HGR60	70	30	12.8±0.15	78.0	2200	2900
HR06	94	6	14.9±0.15	88.0	2300	4200
HR08	92	8	14.7±0.15	87.5	2400	4100
HR10	89	11	14.3±0.15	86.5	2500	3900
HR12	86	14	14.0±0.15	85.0	2600	3600
HR14	80	18	13.6±0.15	83.0	2500	3300

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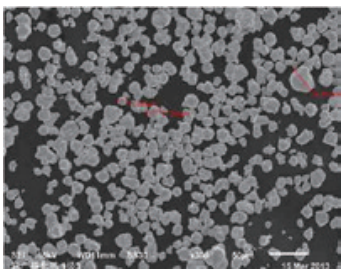
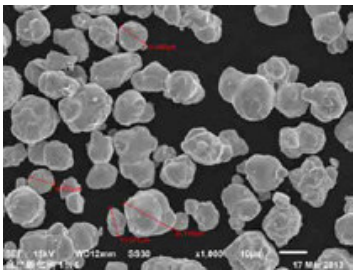
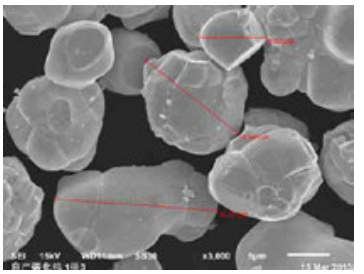
Microstructure of Tungsten Carbide







Composite Rolls

The tungsten carbide composite roll is mainly used on the finishing mill for bar, deformed steel bar and common wire.

In this way, we can greatly reduce the frequency of changing groove and roll, thus to reduce the labor intensity and improve the work efficiency. The surface quality and yield shall be improved to a maximum degree, which leads to a remarkable economic benefit.

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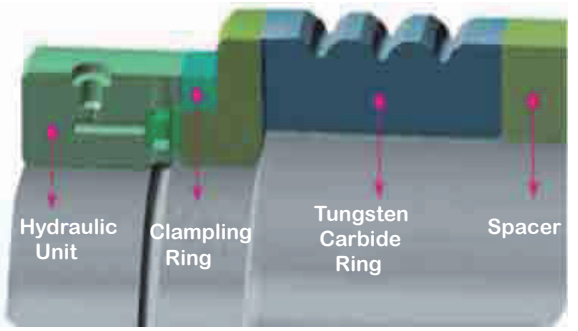
Composite Way

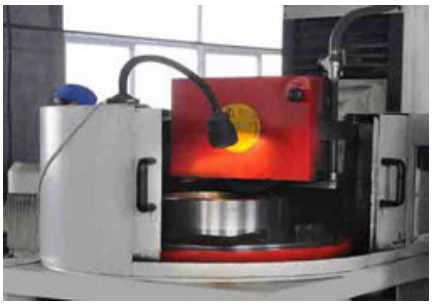
Composite rolls are consisted of hydraulic unit, clamping rings, tungsten carbide rings and spacer.

We design number of tungsten carbide rings according to the request of working condition and dimension of grooves.

By means of hydraulic lock nut, the tungsten carbide rings are fastened to the axle with pressure of 200Mpa from hydraulic oil. Under the protection of prestress, the tungsten carbide composite roll shall work more effectively.



Advanced Equipments



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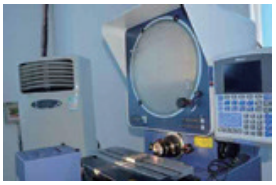
Quality Control








Packaging

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