

SELECTION OF DIFFERENT MATERIALS TO IMPROVED PERFORMANCES OF PINCH ROLLERS

Pinch roller unit is used to keep rolling speed and tension to stabilize rolling speed



**R-PR
DHR**

>rollers for pinch roll along mill<

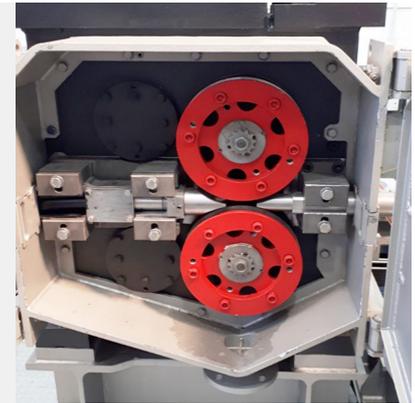


Best materials can be proposed to improve performance, to reduce plant shutdowns due to replacement and improve production continuity.



BODY MATERIAL	PERFORMANCE / PRICE	POSITION ON THE MILL
Fe510 Base material, hard facing with cobalt alloy HRC 40-45	Standard material/base price and base performances	Standard low
CAST IRON	Standard	Standard application
DHR	Performances equivalent to high speed steel very competitive price	After roughing mill BEST SOLUTION
TUNGSTEN CARIBIDE	High performance material	After roughing mill high speed rolling HIGHEST SOLUTION

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DHR PINCH ROLLERS

Contains alloy components (Cr, Mo, W, Ni, Co, V, etc.) of more than 30% and minimizes the decrease of hardness at high temperature to maintain high wear resistance. The tough nature of this product minimizes the damage and contributes to productivity improvement. With DHR it is easier to obtain hardness according to customer needs (HRC 54 -61) and has proven superior performance compared to conventional materials. Especially, DHR has excellent performance in parts such as Kocks rolls, Pinch rolls, Guide rollers etc. of steel industry. DHR is equivalent to High Speed Steel.

DHR		
↓	COST	Excellent mechanical properties compared to ordinary high speed steel
		Improve productivity by superior wear resistance
↑	QUALITY	Increase life-time of the parts due to lower re-machining amount
		Minimize the pick-up of the surface
↑	PRODUCTIVITY	Reduce the parts change idle time by long life-time

MORE

- Wear Resistance
- Toughness
- Heat Resistance
- Increase Quality
- Increase Productivity

LESS

- Wear on Grooves
- Breakage / Galling
- Re-Grinding
- Material Pick-up
- Expenses in Maintenance

Save Cost & Increase Quality

TUNGSTEN CARBIDE PINCH ROLLERS

Tungsten carbide is an hard and wear-resistant sintering composite material which is composed of hard metal compound and metal binder. The compounds used in Tungsten carbide are WC, TiC, TaC, NbC, Cr3C2, VC and so on, and the binders include Co,Ni. Main characteristics of Tungsten carbide are as following:

TUNGSTEN CARBIDE		
↑	COST	Highest mechanical properties compared to ordinary high speed steel
		Highest Improve productivity by superior wear resistance
↑	QUALITY	Highest life-time of the parts due to lower re-machining amount
		Minimize the pick-up of the surface
↑	PRODUCTIVITY	Reduce the parts change idle time by highest long life-time