

The comparative results between Chrome corrugating roll and Tungsten carbide corrugating roll of  $\Phi 320-\Phi 325 \times 1850$  (1900)

	<p>Chrome corrugating roll</p> <p>Initial investment estimate is 75,000RMB,can run 6-8 millions long meters(paper made inland)</p>		<p>Tungsten carbide corrugating roll</p> <p>Initial investment estimate is 170,000RMB,but it can run 18-24 millions long meters(sometimes this number can be achieved 30 millions)</p>
1	<p>UV flute is suitable for Chrome corrugating rolls, but the disadvantage is that with the passage of time,flute tip will become bigger day by day,this will waste many glue everyday,and the board is also softer than normal.If use V flute, the service life will very short.</p>	1	<p>Because of its hard wear-resistant,the Tungsten carbide corrugating roll can use V flute,first,you can save more glue,second holding power is bigger than Chrome,and the board is more firm.</p>
2	<p>Because the abrasion of Chrome corrugating rolls is so big,that when considering the high degree, we have to increase abrase height(we called it: virtual height) For example MengNiu outside box pressure limit height is 4.6mm,add 0.25mm is 4.85mm,that means the T.U.R is 1.55, consume so much paper.</p>	2	<p>Using Tungsten carbide corrugating roll do not need to increase virtual height, because it resist the abrasion. For example MengNiu outside box pressure limit height is 4.6mm,add 0.05mm is 4.65mm,that means the T.U.R is 1.45,It can save paper.Compairing with Chrome corrugating roll , descend 10%.</p>
3	<p>You can't run narrow width usually(easily cause median sinus), longitudinal high and low flute,medial can't stick glue, Two edge side destroy board easily,impact on the quality of board</p>	3	<p>You can run narrow width usually if using Tungsten carbide corrugating roll.It won't cause median sinus,and the quality of board is stablily and can ensuring straight tooth surface has been conducive to the operation.</p>
4	<p>Lifetime short,Normally less than 6-8millions long meters.The height it is on use is 4.8mm,when it's replaced the height maybe 4.4mm or even lower,and at the cost of waste virtual height(0.2mm) everyday to achieved using time.</p>	4	<p>Quality assurance 18-24million long meters,lifetime is 3 times of Chrome corrugating roll,if the qualigy of board is stable and the rate of sediment is low,it can be used for 30million long meters.and the height is 4.6mm when it is on use and the same when it is repair,no change!</p>
5	<p>If Chrome corrugating roll lifetime want to be 18-24 millions,It must refurbish for 3 times,and everytime it can return to use for 6-8 millions, the cost is <math>75,000+15,000(\text{refurbish price}) \times 3=120,000\text{RMB}</math>, and you should also consider installation cost for 3 times</p>	5	<p>As long as the bearings are better, keep the state of ubricating,in the customer base of Dasong company,Shenjiang paper,Shanying company in HangZhou, Wangwang company in Changsha,Wangda company in Shenzhen are all running over 80million long meters.(till 20-10-2007 Shanying company A flute is running over 100million long meters,that is for only one pair rolls.)</p>

6	Now you should think it is still cheaper than Tungsten carbide corrugating rolls, that is wrong! Because you are wasting virtual height every day. Just as Mengniu, T.U.R.=1.55, it is too waste, and your cost is more than 120,000RMB	6	Using Tungsten carbide corrugating roll the height is 4.65mm the T.U.R. is 1.45, that is less than Chrome corrugating roll for 0.10mm, that means you can save 10% every hundred meters.
7	The element of refurbished Chrome corrugating roll is deep excavation outside circle of root. That will reduce outside circle and pitch, and increase T.U.R., so the price of refurbish is increasing T.U.R., now you have to pay more for the board than using Tungsten carbide corrugating roll.	7	Tungsten carbide will not hurt the basis of the roll, only the coating abrasion. Do not take into account the changes in T.U.R., it is nearly not change.
8	Integrated on 6、7, you can find the cost of Chrome is more than Tungsten carbide.	8	Constant of the height and the T.U.R., Let you know the answer to calculate long-term business planning arrangements.
9	The Chrome corrugating roll will be scrapped when it is refurbished for 3 times, you have to use new rolls that cost 75,000RMB, so the initial investment estimate is $120,000 + 75,000 = 195,000$ RMB, is more than Tungsten carbide corrugating roll	9	Right now, if you are using Tungsten carbide corrugating roll, you do not need input anymore, continue to play its advantage.
10	When the rolls are refurbished, the Chrome corrugating roll median sinus is increasing pressure roll、glue roll and doctor roll, in order to maintain flat cardboard, it is necessary to repair them. You will put the cost of $4,500 + 4,000 + 2,000 = 10,000$ RMB, 3 times is 30,000RMB, so the total cost is $195,000 + 30,000 = 225,000$ RMB it is far more than Tungsten carbide corrugating rolls	10	Because the Tungsten carbide won't cause median sinus, you do not need to consider the refurbishment of pressure roll, glue roll and doctor roll, you do not need to input 30,000RMB for it. Now as 3 times of lifetime of Chrome corrugating roll, inputs do not have to repeat a single penny
The above calculation, it is easy to see that the use of the same in both the length of the agreement, the investment of Chrome will be greater than Tungsten carbide. Using Tungsten carbide corrugating roll can save invisible input and paper low rate, make you understand the cost of the remaining inputs sufficient to recover the cost of you using it.			