



King Roller

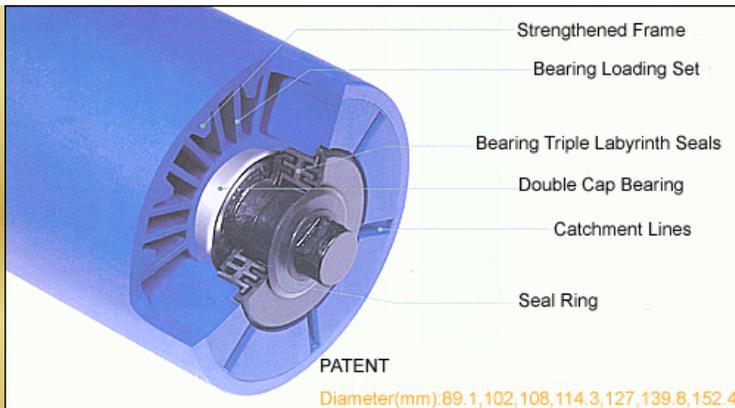
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- HongChuan Industrial Co., Ltd.**, founded in 1995. During this time the company has become a highly skilled professional manufacturer of conveyor rollers. With patience, Dedication and a vast knowledge of the roller industry, we have successfully developed the HDPE system product -- King Roller. With the support and understanding of our loyal customer base, we have been able to design and develop this product to meet the quality standards required by industry around the world. Hong Chuan's dedicate team of professional staff members, are proud of to be associated with the high quality product they produce, and are constantly striving to improve and satisfy their clients needs. This has ensued long lasting business relationships with our customers both locally and overseas.

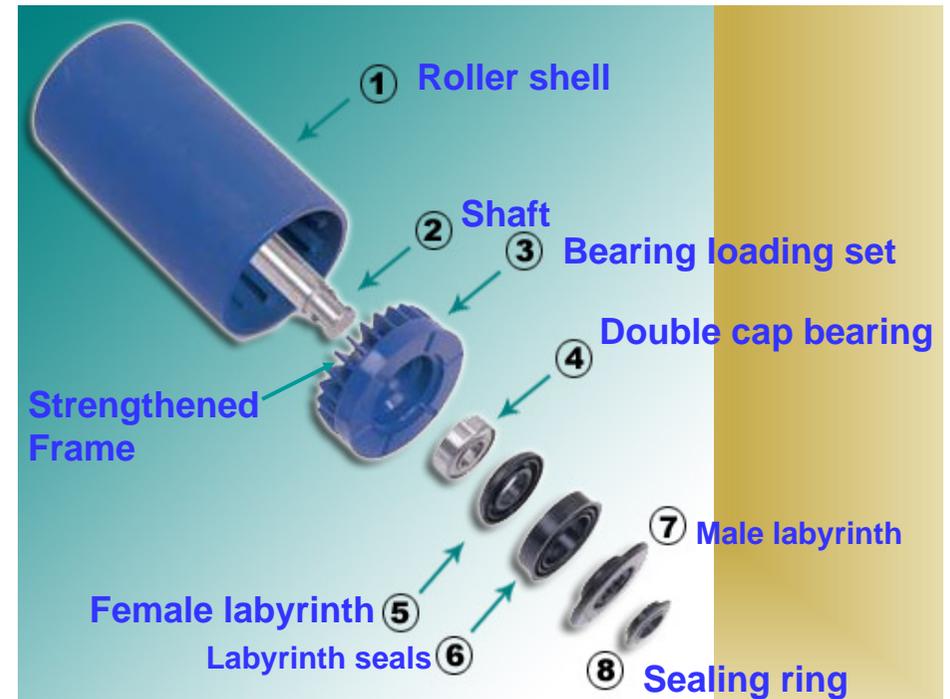


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**King Roller** are made from **High Density Polyethylene Roller**, the versatility of this material enables us to satisfy a varied range of uses where other plastic and steel roller have failed. The injection molding processes also ensure the high quality and accurate concentricity necessary to carry our brand name.

**Seals**  
 All seal are multi-labyrinth type to protect roller from particle and dust.



ภาพจากการแกะเพื่อตรวจสอบ 29/11/2005



## PRINCIPLE COMPONENTS



## ASSET PROTECTION (BELT)

When steel rollers fail they can produce sharp rotating edges, which can cut and rip conveyor belts at a very significant cost, causing unplanned down time and interruption to coal supply. In turn, a cut conveyor belt traveling at high speed can pose a significant risk to employees working in the vicinity of the operating plant.



## Steel roller Rust problem



# ASSET PROTECTION (BELT)

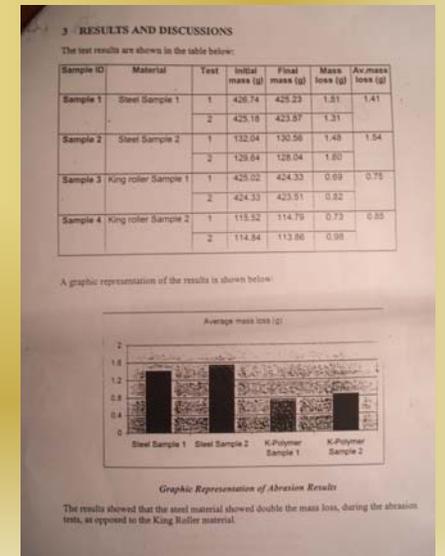
- MANUAL HANDLING**

- 50% lighter than steel shell rollers
- Lighter in supply transportation and handling to stores from supplier.
- Lighter in application when loading to transport into vehicle from stores and then to conveyors for installation which are long and steep in access.



# ABRASION & CORROSION RESISTANT

- Comparative Wear Test Results – See results indicate that steel life will far outlast steel through wear Acid and alkaline resistant (no rust shell)



# SPLILLAGE CONTROL

- Process material does not adhere to or build up on K-Polymer Rollers, the primary cause of belt mis-tracking, spillage and leakage.



Steel Shell



K-Polymer

# Roller application in Cement plant



# REDUCE THE RISK

reduce the risk



น้ำหนักเบาเปรียบเทียบขนาดเดียวกันกับเหล็ก  
ขนาด152x465x525x25(Bearing no.6305)  
KingRoller น้ำหนักประมาณ 19 kg



Roller เหล็กน้ำหนักประมาณ 38 kg



เบาจริงๆด้วย  
เพื่อน

เบา มั๊กๆ



เบื่อง่ายหิน

## Case history



### PLASTIC ENSURES SAND PRODUCTION ROLLS ON

The conveyor rollers driven to a halt by acidity levels in wash water is becoming a thing of the past in the sand processing industry.

With conveyor rollers traditionally made of steel, rusted shells and moisture in the bearing is the major cause of premature failure.

Conveyor specialist Hong Chuan is recommending the replacement of traditional steel rollers with a high grade polymer alternative that not only resists rust but also has high wear resistance, a low co-efficient of friction, weighs less and is able to resist water. Therefore rollers lasts longer in these adverse conditions.

- King rollers have proved themselves to outlast steel rollers in not only the sand processing industry but also other industries creating harsh environments such as salt processing, coal processing plants, fertilizer producers and minerals processors.

- **KING ROLLER LOWER BACK PAIN**
- **A 1200mm steel conveyor belt return roller in most heavy industries usually weights in at about 23kg, whereas a King-synthetic fiber alternative is only around 7kg.**
- And the beauty is that not only does it take the strain out of lifting and carrying, but the King roller also has comparable physical properties.
- As conveyors often have long narrow walkways and with return rollers access from both sides of the conveyor is rarely possible, the process often involves an undue amount of stretching. Even on a 90mm belt it steel roller often weigh around 18-19kg.
- King makes the rollers, likes the physical process of roller installation to that of transporting firewood.
- " Normally it is arms out-stretched, carrying the rollers over great distance and thus increasing the chances of back strain for the employee and an expensive compensation situation for the employer
- " Steel rollers may be slightly less expensive, but that doesn't offset the costs of maintaining an employee who is on an injury lay-off and then paying another person to cover for that duty while recovery takes place.
- " King rollers are the logical replacement for steel to heighten manual handling levels while reducing other potential injury situations which can occur as corrosion and other atmospheric damage takes effect on the steel units.
- The product has a roller shell and bearing housing made from high-density polyethylene, with a sealed-for-life bearing protected from moisture and dust by a tripe labyrinth seal.
- The bearing housing incorporates moulded grooves that use centrifugal force to displace water and dust from entering the roller.
- Because of the lightweight involved, power requirements at installations are also reduced.
- A configuration of the shell and shaft has been selected to fit into conventional trough or ilder return frames and no special frames are required.



- **POLYMER ROLLER WITH SEALED BEARING REPLACING TRADITIONAL STEEL**
  - A lightweight polymer conveyor roller with totally sealed bearing is replacing traditional steel roller bearings on conveyors systems exposed to condensation , acidity and other forms of corrosion.
  - The lightweight King-Polymer conveyor rollers are durable and capable of handling moderate impact and abrasive applications in applications for materials handling, mining, chemical processing, waterfront and other industries.
- Key to product's longevity are a roller shell and bearing housing made from high density polyethylene, with a sealed-for-life bearing protected from moisture and dust by a tripe labyrinth seal.
- The bearing housing incorporates moulded grooves that use centrifugal force to displace water and dust from entering the roller.
- Being considerably lighter than a conventional steel roller, power requirements are greatly reduced.
- Because the configuration of the shell and shaft has been selected to fit into conventional trough or ilder return frames, no special frames are required and retrofits into existing trouble spots are simplified.
  - King-Polymer rollers can be produced in sizes to suit the application. Even after years of service, a roller can be split open for inspection and it would be unusual to find any foreign substance within it.



- **COAL RUST ON ROLLERS BITES THE DUST**
- **" Encounters high condensation level and acidity associated with coal operations and suffers rust damage to steel rollers on its coat feeder conveyor systems ", The coals said.** Replacing steel rollers with polymer units has all but eliminated the rust factor and stamped out downtime. " The conveyors are constantly running, but because coal is 72% water the moisture build up is particularly high in winter ". " Many steel rollers have been in service, and they are exposed to these difficult condition with up to 100 steel shells having rusted out to date. " The lightweight King conveyor roller is durable and capable of handling moderate impact and abrasive applications. Roller shell and bearing housing is made from high-density polyethylene, with a sealed-for-life bearing protected from moisture and dust by a tripe labyrinth seal. The bearing housing incorporates moulded grooves that use centrifugal force to displace water and dust from entering the roller. Being considerably lighter than a conventional steel roller, power requirements are greatly reduced. Because the configuration of the shell and shaft has been selected to fit into conventional trough or ilder return frames, no special frames are required and retrofits into existing trouble spots are simplified. King conveyor rollers have a strong and lightweight polyethylene shell with labyrinth sealed bearings. They are durable and capable of handling difficult wet and abrasive conditions. Key to product's longevity are a roller shell and bearing housing made from high density polyethylene, with a sealed-for-life bearing protected from moisture and dust by a tripe labyrinth seal. The bearing housing incorporates moulded grooves that use centrifugal force to displace water and dust from entering the roller. All belt widths are stocked and dimensions are interchangeable with steel shell rollers, so that no special frames are required and retro- fits into existing trouble spots are simplified. The rollers are comparably priced against conventional steel shell rollers.

