



超高分子聚乙烯托辊 HDPE Roller

一、产品介绍 Product Description



◆**河北勤亿高分子皮带托辊**是我公司开发的新一代托辊革命性专利产品，由辊皮、轴承、密封组件、轴几部分组成。该产品的专利核心独有的密封技术，彻底隔绝了轴承与外界的联系，避免被污染。每根托辊都采用上乘的材料制成，确保出厂托辊都是精品。

◆**Hebei Qinyi HDPE Belt Idler** is a revolutionary patent product of a new generation of idler developed by our company, which is composed of roller pipe, bearing, sealing assembly and shaft. The product's patented core unique sealing technology completely isolates the contact between the bearing and the outside and prevents it from being polluted. Each roller is made of high-quality materials to ensure that the factory rollers are all high-quality products.

◆**托辊辊管**采用纯正超高分子量聚乙烯材料挤塑成型，分子量高于 350 万，拥有极佳的自润滑性、耐磨损性和抗老化性能。

◆**The roller tube of the idler** is extruded from pure ultra-high molecular weight polyethylene material, the molecular weight is higher than 3.5 million,



and has excellent self-lubrication, wear resistance and anti-aging performance.

- ◆ **轴承**采用哈轴、洛轴、SKF、NSK 等国内外知名厂家轴承，保证使用寿命。
- ◆ **The bearings** are from well-known manufacturers at home and abroad, such as HRB, LYC, SKF, NSK, etc., to ensure the service life.
- ◆ **密封件**采用高强度材料注塑成型，耐受各种恶劣工况。
- ◆ **Seals structure** are injection-molded with high-strength materials, which can withstand various harsh working conditions.

超高分子托辊能延长设备使用周期，节省能源，有效改善工作环境。现已广泛应用于煤炭、水泥、钢铁、电力、化工、焦化等行业的输送系统。是皮带运输机械钢制托辊理想的更新换代产品。

HDPE rollers can extend the service life of equipment, save energy and effectively improve the working environment. It has been widely used in the transportation system of coal, cement, steel, electric power, chemical industry, coking and other industries. It is an ideal replacement product for steel idlers of belt transport machinery.



二、产品优势 Product Advantages

1、**长寿命**---具有钢制托辊 5 倍以上的使用寿命。

Long service life---It has a service life of more than 5 times that of steel rollers.

2、**保护皮带**---高分子辊管表面光滑、无磁性、不吸附铁粉、粉尘及各种黏性物质；与皮带摩擦系数极低，有自润滑性，这些优点均能有效的保护皮带，延长 20%使用寿命。

Protecting the belt---the surface of the HDPE roller tube is smooth, non-magnetic, and does not absorb iron powder, dust and various sticky substances; the friction coefficient with the belt is extremely low, and it has self-lubricating properties. These advantages can effectively protect the belt and prolong the life of the belt. 20% service life.

3、**重量轻**---只有钢托辊的三分之一，陶瓷托辊的五分之一，便于施工安装，同时具有良好的节电效果。

Light weight---only one-third of the steel roller and one-fifth of the ceramic roller, which is convenient for construction and installation, and has a good power-saving effect.

4、**迷宫式设计**-----特殊的迷宫式密封设计，有效保护轴承，一次安装，终身免维护。

Labyrinth design-- The special labyrinth seal design effectively protects the bearings, once installed, free for life maintain.

5、**低噪音**-- 噪音只有钢托辊的二分之一，有效改善工作环境。

Low noise --The noise is only half of that of steel rollers, which effectively improves the working environment.



6、**特殊工况**--耐酸、碱、盐等各种化学腐蚀性工况。

Special working conditions--Resistant to acid, alkali, salt and other chemically corrosive working conditions.

7、**优良的性价比**----价格略高于钢制托辊，在其使用寿命内能为客户带来巨大的成本节约。

Excellent cost performance --The price is slightly higher than that of steel idlers, which can bring huge benefits to customers during its service life

saving cost.

8、**材质优势**----整体材料有极好的韧性，能很好地吸收震动，保护轴承，延长寿命。

Material advantages-- The overall material has excellent toughness, which can absorb vibration well, protect bearings and prolong life

Life.

9、**保障安全生产**----有效规避钢制托辊辊皮破损时，易产生撕裂皮带的生产事故；及规避钢制托辊不转时，加重与皮带的摩擦，易产生火灾隐患的危险。

Guarantee safe production- Effectively avoid the production accident of tearing the belt when the steel roller skin is damaged;

And avoid when the steel roller does not rotate, aggravate the friction with the belt, which is easy to cause the danger of fire hazard.

三、产品规格 Product Specification

1、产品直径范围：（89/102/108/114/127/133/140/152/159/165/178/194/219）
长度范围（190mm-3500mm）的国标及非标托辊。

Product diameter range:

(89/102/108/114/127/133/140/152/159/165/178/194/219) national standard and non-standard rollers in the length range (190mm-3500mm).



2、托辊种类涵盖：槽型托辊、下平托辊、缓冲托辊、上下摩擦调心托辊、上下锥形调心托辊。

The types of idlers include: Trough idlers, lower flat idlers, Impact idlers, upper and lower friction self-aligning idlers, and upper and lower tapered self-aligning idlers.

3、特种工况使用：无磁托辊、双抗托辊。

Use in special working conditions: non-magnetic idler, double-resistant idler.

Hebei Qinyi
Conveying Equipment Co., Ltd.



四、生产设备与产能 Production Equipment and Capacity

- 1、我们拥有自己设计制造的自动化数控生产线，生产线中包含如下独有核心专利设备：全自动挤塑设备；全自动注塑设备；双向数控塑料辊体车床；双向铣扁带车槽的铣床；塑料管材数控切管机。

We have an automatic CNC production line designed and manufactured by ourselves. The production line includes the following unique core patented equipment: automatic extrusion equipment; automatic injection molding equipment; two-way CNC plastic roller lathe; Pipe cutting machine.

- 2、我们自动化生产线单线月加工托辊 50000 只，并具备扩大产能的能力。
Our automated production line can process 50,000 rollers per month, and has the ability to expand production capacity.

- 3、我们的数控自动化加工设备能充分保证产品的加工精度和质量。

Our CNC automatic processing equipment can fully guarantee the processing accuracy and quality of products.





五、产品资质证书 Product Qualification Certificate

◆ 矿用产品安全标志证书（煤安证）

Mine Product Safety Mark Certificate (Coal Safety Certificate)

◆ 高分子托辊实用新型专利证书

Utility model patent certificate for HDPE roller

◆ 皮带清扫器发明专利证书

Belt Cleaner Invention Patent Certific

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六、不同材质托辊属性对比 Comparison Of Different Material

名称 Name	勤亿托辊 Qinyi Roller	钢托辊 Steel Roller	陶瓷托辊 Ceramic Roller
耐化学腐蚀性（强酸、强碱） Chemical resistance (strong acids, alkalis)	耐 Yes	不耐 No	耐 Yes
韧性（受到较大外力） Toughness (under large external force)	不易碎 Not fragile	不易碎 Not fragile	易碎 fragile
轴承密封性 Bearing tightness	非常好 Very Good	一般 Generally	较差 Poor
表面附着性 Surface adhesion	不易 Not easy	易 easy	易 easy
滑动摩擦系数（对皮带） Sliding friction coefficient (for belt)	较小 0.10-0.15 Smaller 0.10-0.15	较大 0.68-0.80 Larger 0.68-0.80	较大 larger
耐磨性 Wear resistance	好 Good	一般 Generally	好 Good
对皮带的磨损 Wear and tear on the belt	不磨损 No wear	易磨损 Easy to wear	易磨损 Easy to wear
运行电耗（以钢托辊为 1 计） Operating power consumption (based on steel roller as 1)	0.85	1	1.05
噪音及震动 Noise and vibration	较低 Lower	高 High	更高 Higher
重量 Weight	5	10	15
安装维护 Installation and maintenance	安装方便免维护 Easy installation and maintenance free	安装维护工作量大 Installation and maintenance workload is heavy	安装维护工作量大 Installation and maintenance workload is heavy
吸水率 water absorption	较小 Smaller	较小 Smaller	较大 Larger
使用寿命 service life	3-5 年 3-5 years	1-2 年 1-2 years	1-2 年 1-2 years



七、快速见效领域 Quick Wins

1、钢制托辊使用寿命极低的环境如：炼铁厂的冲渣皮带、电厂除灰系统等。

The environment where the service life of steel idlers is extremely low, such as: slag flushing belts in ironworks, ash removal systems in power plants, etc.

2、磁选设备上的无磁托辊，勤亿超高分子托辊价格低寿命长。

Non-magnetic rollers on magnetic separation equipment, Qinyi HDPE rollers are low in price and long in life.

3、严重腐蚀领域：化工、盐碱、海洋及相邻区域。

Severe corrosion areas: chemical industry, saline alkali, marine and adjacent areas.

4、长跨度、位置高等不易更换的工况。

Working conditions that are difficult to replace, such as long spans and high positions.

八、战略合作方式 Strategic Cooperation

◆针对选择勤亿托辊进行长期战略合作的企业，可以针对固定生产区域展开 2 年以上的总量承包的战略合作模式，可以采用包产能、包总采购金额或总采购数量三种方式。

For enterprises that choose Qinyi Roller for long-term strategic cooperation, they can carry out a strategic cooperation mode of total contracting for more than 2 years for a fixed production area, and can adopt three methods: package capacity, package total purchase amount or total purchase quantity.

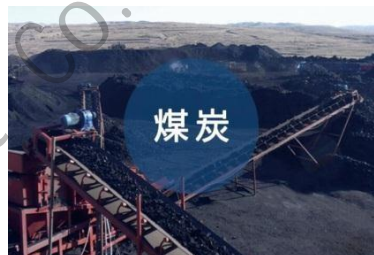
◆针对总包模式、我们可以选择分期、分批付款的方式，让企业按以往采购成本的 80% 的形式直接产生短期经济效益，并获得长期 50% 以上的成本节约效益的好。

Aiming at the general contract mode, we can choose installment and batch payment methods, so that enterprises can directly generate short-term economic benefits in the form of 80% of the previous procurement costs, and



obtain long-term cost-saving benefits of more than 50%.

九、主要应用领域 Main Application Areas





十、出口及安装案例 Export and Installation Case

