

We are pleased to introduce **non metallic , polymer conveyor rollers** suitable for corrosive and adverse applications. These rollers are made from High Density Polyethylene. The versatility of this material enables us to satisfy a varied range of uses where other plastic and metallic rollers have failed.

Conveyor Roller are very important component of belt conveyor. They are present along the entire Length of the conveyor, support the belt and moving the materials loaded on the belt. The diameter of the idler could be correctly selected according to the belt width and Travel speed. They almost cover all belt width requirement General steel Roller consists of idler shell, spindle, bearing, bearing house, seals Equipment and axial fixed unites.

#### Advantages :

- High wear & Chemical resistant
- Belt Protection : 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, cut conveyor belt traveling at high speed can pose a significant **risk to employees working in the vicinity** of the operating plant
- Less Noise and Antistatic : The **anti-static agent** in this compound **prevents sparking** during operation in Volatile conditions. Such sought after feature when considering usage such **underground mining** where gas build-up can occur, also **dusty conditions in grain storage areas**
- Light Weight : **50 % Lighter than steel shell rollers**

#### Salient Features of Conveyor Rollers

- Rollers are manufactured from ERW **pipes as per IS: 9295**, which are specially made for Idlers application. These pipes are specially made with tight tolerances related to straightness.
- Pipes are bored at both ends simultaneously using a special purpose **Double Headed Boring machine**. This will maintain concentricity of shaft at both ends of idlers and will limit the run out of the idlers.
- The bearing housings are manufactured from **Extra Deep Drawn CRCA sheets**.
- The Bearing seating, flange diameter and back facing of the bearing housing are **machined in a single setting** on a Special Purpose Machine to ensure absolute concentricity.
- Bearing Housings are **welded to the pipe at both ends simultaneously** by CO2 welding.
- Roller shafts are made of **bright bar**.
- We use only **genuine bearings from SKF/FAG**.
- Vertical **labyrinth type sealing system** is provided for the bearings. The sealing system consists of Double Labyrinth Seal, made of CRCA sheet. Glass beaded Nylon seal is provided at back of the bearing to avoid grease entering in side the pipe. A neoprene rubber seal is provided on top of the outer labyrinth seal to prevent any water and dust from entering inside the idler.
- After the idlers are assembled each idler is **continuously rotated for a minimum** period of 15 minutes for both freeing of the idler as well as testing for any heating of the bearing.
- As per the Quality Assurance Plan, **idlers are tested for Water and Dust Penetration** in specially built Jigs.
- The **rolling resistance of Capital King idlers is as low as 0.01** as against allowable value of 0.02 and design value of 0.03 for standard rollwers.

- 1. ROLLER BODY** : The shell is made of precision smooth surface 'ERW' steel tube as per IS : 9295 / IS 1239.
- 2. ROLLERS END** : Bearing housing made of press steel sheet with calibrated bearing seat, are welded with the periphery of the steel tube, for maximum strength.
- 3. SPINDLE** : Spindles are made from M.S. bright bars and are precision ground at bearing and seal seating areas.
- 4. BEARING** : Precision single-row deep groove ball bearings with C3 clearance are provided. Distance between bearings and point of support at the shaft is very short and thus ensure higher load carrying capacity and longer service life.
- 5. SEALING** : The double multi labyrinth seal ensures optimum protection against the entry of dust and dirt in to the bearings.
- 6. INNER SEAL**
- 7. DUST COVER**
- 8. RAIN CAP**

**Sizes**  
60mm, Ø 63.5mm, Ø 76mm, Ø 89mm, Ø 102mm, Ø 114mm, Ø 127mm, Ø 139mm, Ø 159mm.

