

Megaroller HDPE Roller



World leader in conveyor idlers

Innovative High-Density Polyethylene (HDPE) Rollers

Megaroller HDPE Rollers are an innovation in reinforced high-density polyethylene (HDPE) conveyor rollers. Utilizing Megaroller's unique design and incorporating our patented Sealing Arrangement, Bearing and Seal Housing, and Roller Shell, Megaroller HDPE Rollers are a robust, long-lasting and ecologically-sound alternative to conventional steel rollers. All plastic components have been designed in-house and is produced in our factory.



Proven, Patented Technologies

- **Advanced Sealing Arrangement (Patent number 99/5238)**
Megaroller's patented Sealing Arrangement, consisting of a back seal, a shock-resisting bearing cover, an outer seal, and four low-friction contact lip seals is proven by the SABS as the most-effective sealing arrangement available on the market. This unique sealing arrangement is non-corrosive, has a very low friction coefficient, and is highly-resistant to chemicals, acid, water and wear.
- **Durable Roller Shell (Patent number 2001/6394)**
Our patented Roller Shell's wall thickness ranges between 13mm to 19mm (depending on diameter) and a reinforced HDPE drum with a castellated internal transverse cross section. Four times thicker than the wall thickness required by the SABS 1313, Megaroller ensures a longer shell life, while about 60% of the weight of conventional steel rollers.
- **High-impact Bearing and Seal Housing (Patent number 2001/6883)**
Megaroller's patented Bearing and Sealing Housing, injection-moulded from high-impact HDPE to ensure precision, eliminates the risk of misalignment and distortion. Due to its innovative design, the bearing and sealing housing is able to absorb the impact imposed by uneven loads and belt speed. The patent includes the heat fusion process used to permanently attach the bearing housing to the roller shell to form a totally sealed and aligned roller drum which is precision machined to a concentricity (TIR) specification of 0,20mm maximum.

Best for Extreme Applications

Megaroller HDPE Rollers are made from the highest-quality, reinforced high-density polyethylene using the latest technologies, according to strict manufacturing standards for superior performance and longevity.

Megaroller HDPE Rollers are available in these application variations:

- **Standard**
Megaroller HDPE Rollers have high-resistance to wear by abrasion and ultra-violet rays. Megaroller's patented Sealing Arrangement allows these rollers to be used in the harshest weather conditions and in moisture-rich environments.
- **Anti-Seize**
The roller utilizes Megaroller's innovative Anti-Seize Technology, comprising a side flinger which remains static while the roller is running. This protects the sealing arrangement against any spillage that could get lodged between the shaft and the roller's side face. It is specifically suggested for dusty environments, like cement factories and crusher plants..
- **Anti- Run-Back**
Our Anti- Run-Back roller can be applied to incline belts to prevent the belt from running back in the event of a "belt-snap". Rollers are fitted with Megaroller's patented sealing arrangement as well as a roller brake system which ensures that the roller can only run in one direction.

CONTACT US

Please refer to our website, www.megarollerindustries.com, for all contact information. We would love to hear from you.

Unprecedented performance

The Megaroller HDPE Roller is designed to operate in extreme temperatures, harsh operating conditions, and in highly-corrosive, chemical or coastal conditions which are known to attack and destroy conventional steel rollers.

The main body of the roller is made entirely from HDPE which is known for its high resistance to wear by abrasion and sun exposure; fire retardant characteristics; low friction co-efficiency; ability to absorb high impact forces; gripping capabilities, and high melting point.

Utilizing Megaroller's patented technologies, and with advanced applications to prevent seizing and conveyer roll-backs, Megaroller HDPE Rollers have proven to outperform similar products. The Megaroller HDPE Roller's perfectly-concentric design and unique configuration decreases vibration, which translates into lower repair and maintenance costs. They are lighter in weight than steel rollers, run quieter, and have a longer lifespan.

Megaroller HDPE Roller Specs



Outer Diameter / Available sizes

- 102
- 127
- 152
- 178

Shaft Sizes/ Available Options

- 20 Series
- 25 Series
- 30 Series
- 40 Series

Gauge Length Range

- 200 to 1745

Shaft material / Available Options

- Mild Steel
- Stainless Steel

Standard Shaft Variations

- Open-ended
- Closed-ended

Custom Shaft Machining / Available on request

- Stub
- Garland
- Extended
- Threaded
- Series 2000 End
- Hexagon Head End

Bearings / Available Options

- B2K inhouse brand
- SKF
- BMG
- URB

Special Variations / Available on Request

- Links fitted for garland rollers
- Short roller body
- Longer roller body



Lubricated for Life

Bearing lubrication is an important factor affecting the theoretical lifespan of any conveyor roller. Bearings are lubricated at the factory and placed in a protective housing that is completely sealed by our unique sealing arrangement. This eliminates the need to lubricate at user level, prevents the risk of over or under-lubrication, and mitigates the risk of bearing failure due to lack of lubrication.

Our high-spec lubricant ticks all the boxes:

- Contains Anti-Rust Additives
- Contains Anti-Oxidant Additives
- Excellent Water Repellent Properties
- Mechanical Stability
- High Temperature Performance
- Operating Temperature from below -30°C to +200°C

Big Benefits

- Non corrosive
- Excellent abrasion resistance
- Long lifespan
- Can be used in almost any application where steel rollers are used
- Lighter than steel roller
- Lower start-up costs on conveyer drives thanks to lighter weight
- Recyclable
- Decreases vibration
- Lowers maintenance costs
- Minimises damage to conveyer belts
- Quieter operation than conventional steel rollers
- Energy efficient
- Water tight sealing arrangement
- Extends the lifespan of bearings
- Competitive pricing
- Reduces Total Cost of Ownership
- Performs well in harsh weather and extreme applications