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CTS TYRE RECYCLING

Current Premises Infrastructure, Equipment and Operations

CTSTR operates a state-of-the-art tyre recycling facility within a newly established 5,000 sqm warehouse. This advanced site is equipped with cutting-edge European recycling technology capable of processing off-the-road (OTR) tyres up to 63 inches in diameter (largest tyre in the mining industry), including all kind of other tyres and rubber conveyor belts.

Key Equipment & Process Flow: -

1. Mining Tyres Downsizing – Salvadori System

The facility is equipped with high-efficiency Salvadori machines—**MT RX**, **SUPER WOLVERINE**, and **RAPTOR**—designed to downsize large mining tyres into suitable feedstock for further processing.

2. Primary Shredding – ELDAN System

- **Super Chopper:** Shreds whole tyres (up to 29 inches) and downsized chunks of mining tyres into 100–200 mm shreds.
- **Multi-Purpose Rasper (MPR):** Further reduces the shreds into 20–25 mm rubber chips, ideal for use as rubber mulch or tyre-derived fuel (TDF).

3. Steel Separation & Cleaning

- **Over band Magnet:** Extracts high-carbon steel bead wire from the output of MPR.
- **Steel Cleaning System:** Enhances steel purity up to 97–98%.

4. Granulation Process

- Two **Fine Granulators** and classifier machines refine rubber shreds into granules from 0.5mm to 12mm suitable for the rubber flooring and matting industry.

5. Fine Grinding – Cracker Mill System

- Produces **30–40 mesh clean rubber powder**, an optimal additive for bitumen in road construction applications.

6. Dust & Textile Filtration

- A **70,000 m³/h CFM capacity filter bag house** ensures superior dust and textile fibre collection across the entire processing line, maintaining air quality and cleanliness.

7. Knives Grinding Machine

- To ensure optimal cutting performance and minimize downtime, CTSTR operates a **European knife Grinding machine**. This system plays a critical role in maintaining the sharpness of processing blades across all machinery. Regular re-sharpening of knives enhances operational efficiency, extends equipment life, and helps prevent unexpected breakdowns.

8. Finished Goods Handling & Storage

- **Finished Goods:** Stored in designated zones either in the warehouse or under the awning.

9. Waste Handling and Storage: -

- Tyres are collected by the CTS Tyre Recycling truck fleet. Depending on current stock levels tyres unloaded outside loose, ready for direct loading into the tyre feeder. Any tyres that cannot be processed within a shift are unloaded into dedicated storage areas either under the awning or in the hardstand, ready for processing.
- Waste tyre handling at CTSTR is managed with dedicated heavy-duty equipment to ensure efficiency and safety:
- **8.5-ton capacity Konecranes Tyre Handler** is used for handling large mining tyres.
- **4-ton capacity Merlo Telehandler** is used for handling smaller tyres and general material movement.
- All waste tyres and rubber conveyor belts are stored in a designated **hardstand area**, developed and maintained **in full compliance with DFES Guidance Note 02**, ensuring safe and environmentally responsible storage practices.