

Size Reduction Equipment Maintenance

How to keep your size reduction equipment in top shape every shift just by walking around!

Performing regularly scheduled maintenance on impact crushers is crucial for guaranteeing day-to-day reliability and optimum product output. Even daily cleanups and inspections can increase service life. It's a no-brainer, though possibly easier said than done. Begin maintenance team education by instructing on how to do a plant walk around. This training will help your crusher go the distance.

Daily eight-hour shift walk around:

Clean up: Remove dirt and debris from crusher frame surfaces and areas around the machine. Check intake/discharge chutes for any obstructions and/or build up.

Vibration: Listen to the equipment, if something sounds unusual, shut down and inspect. Check continuously monitored vibration sensors.

Feed: Restrict maximum feed size. Maintain feed rate within allowable limits. Limit recirculating product in a closed system.

Lubrication: Check oil level, sight glass, grease appearance, and other lubrication schedules. Use the proper grade of oil. Use the proper specification of filters. Keep the oil breathers clean.

Hydraulics: Inspect hydraulic pressure indicators and switches and tag any leaks for corrective action on the very next maintenance cycle.

Power: Check rotor rotation. Inspect belts. Inspect V-belt drives for damaged belts or loose belt tension. Amperage draw: See if it changes from day to day. If amperage is exceeding normal levels, it could be a signal of bearing problems, loose belts, or general feed issues.

Wear: Check wear parts: cage mill pins, hoppers, shafts, breaker bars, aprons, liners, hammers, hammer bolts, rotor discs, grate bars, and screens. Check machine settings for spring bridges, gap settings, cage spacing, and anvil adjustments. Metal detection is required for all crushers.

Alarms: Check sensors for temperature, electrical, hydraulic and moisture

At the end of the shift note the coast-down time. You're going to need to know and log how long it takes the machine to come to a complete stop after shutdown. If the time starts to shorten, this could indicate a bearing problem.

In conclusion, appoint a "lead person" for each crusher as the go-to for that machine. This person is the historian for the unique operational adjustments you have incorporated for raw feed and product requirements.