

## SL123R UNITHERM

*India's First and Only True Synthetic · High Load · High Temperature Grease to Prevent Failures in Gear Couplings and Heavy-Duty Drives*

### Gear Coupling & Heavy Drive Applications in Cement Plants and Grinding Circuits

Cement kilns, raw mills, cement mills, coal mills, and limestone crushers run the highest-torque lowest-speed drive trains in Indian industry. Kiln girth gear pinions and ball mill pinion drives face continuous high-load operation at 15–20 rpm with grease temperatures reaching 140–160°C. The same drive duty applies in alumina refineries, non-ferrous concentrators, and industrial mineral grinding. Ordinary EP grease bleeds and oxidises; pinion bearing and coupling failure costs crores per day in lost clinker or concentrate.

### Part A — Annual Cost of Gear Coupling & Drive Failures — 5 MTPA Cement Plant / Major Grinding Circuit

- **Pinion + coupling life:** ordinary EP grease delivers 1–1.5 years on kiln and mill pinions against 5+ year design life; fretting and micropitting are the failure signatures.
- **Pinion + coupling spares: ₹40–75 lakh/year.** Kiln pinion bearings and drive couplings are high-value spares; mill pinion replacement requires 48–72 hr outage.
- **Maintenance + alignment: ₹15–25 lakh/year.** Pinion re-alignment and gear mesh reset is specialised labour.
- **Kiln / mill downtime: ₹2–6 cr/year — the dominant cost.** Kiln drive failure ₹4–8 cr/day lost clinker; raw mill pinion failure derates the kiln within 24 hrs.
- **Total: ₹3–8 cr/year per plant.** A true synthetic high-load, high-temperature grease delivers 3–5× pinion life and addresses ₹1–4 cr/year. Highest-conviction application after steel.

### Part B — Gear Coupling & Heavy Drive Applications

- **Kiln Drive** — kiln girth gear pinion bearings; pinion drive coupling; kiln main drive reducer output coupling.
- **Raw Mill** — raw mill pinion drive; raw mill main drive coupling; raw mill slide shoe bearing auxiliary drives.
- **Cement Mill** — cement mill pinion drive; cement mill main drive coupling; separator drive coupling.
- **Coal Mill** — coal mill pinion drive; coal mill main drive coupling; rotary feeder drive.
- **Pre-heater / Calciner** — calciner hot gas fan drive coupling; pre-heater ID fan drive coupling.
- **Clinker Cooler** — clinker cooler drive coupling; cooler grate drive coupling; clinker breaker drive.
- **Limestone & Raw Material Crushing** — primary jaw crusher drive; secondary impact crusher drive; hammer mill drive coupling.
- **Alumina Refinery (Bayer Process) — Grinding** — bauxite mill pinion drive; bauxite crusher drive coupling; digestion area mill auxiliaries.
- **Non-Ferrous Concentrator** — SAG mill pinion drive; ball mill pinion drive; rod mill drive coupling; regrind mill drive.
- **Industrial Minerals** — limestone / dolomite mill drives; feldspar / silica sand mill drives; refractory minerals mill drives.
- **Captive Power / WHRS** — BFP drive couplings; ID/FD/PA fan drive couplings; cooling tower fan gearbox drive.
- **Bulk Handling** — stacker-reclaimer slew drive; long-travel drive coupling; silo feed bucket elevator drive.

**Request a free 90-day plant trial — your reliability data will speak for itself.**

Contact: [technical@stanvac.com](mailto:technical@stanvac.com) · [www.stanvac.com](http://www.stanvac.com)