

SYNTHOX HT

India's First and Only True Synthetic · High Moly · Non-Melting Grease with Highest Anti-Wear and Anti-Friction Capabilities to Prevent Failures in Heavy-Duty Fans and Blowers

Fan & Blower Applications in Sponge Iron & DRI Plants

Coal-based DRI (sponge iron) plants combine the highest fan temperature duty with the worst abrasive dust loading in Indian metallurgy — iron oxide dust, char, and fines contaminate bearings while kiln ID fans, afterburner fans, and product cooling fans run continuously above 180°C. Fan bearing failure halts the rotary kiln, which in coal-based DRI means a 12–24 hour restart with sponge iron quality loss. SYNTHOX HT is engineered for exactly this thermal-plus-abrasive combination.

Part A — Annual Cost of Fan Bearing Failures (500–1,000 TPD Kiln-Based DRI Unit)

- **Fan bearing life:** ordinary high-temp grease delivers 8–18 months on kiln ID and afterburner fans against 4+ year design life.
- **Bearing + overhaul spares:** ₹25–45 lakh/year per kiln. Iron oxide abrasion accelerates wear on shaft sleeves and seals.
- **Re-greasing labour:** ₹10–18 lakh/year. Dust + heat force very short re-lube intervals on ordinary grease.
- **Kiln downtime:** ₹1.5–4 cr/year — the dominant cost. Kiln ID fan failure halts sponge iron production; restart involves fuel loss, refractory stress, and product rejection.
- **Total:** ₹2–6.5 cr/year per 500–1,000 TPD kiln. A non-melting synthetic moly grease delivers 2–3× bearing life and addresses ₹80 lakh–3 cr/year.

Part B — Fan & Blower Applications

- **Rotary Kiln** — kiln ID fan bearings; afterburner fan bearings; air blower bearings (shell fans).
- **Product Cooler** — product cooler ID fan bearings; cooler hood exhaust fan bearings.
- **Dust Collection** — kiln ESP booster fan bearings; bag house fan bearings; kiln area dust collector fan bearings.
- **Coal Handling** — coal grinding mill fan bearings; coal feeder dust collector fan bearings.
- **Iron Ore Handling** — iron ore screening dust collector fan bearings; transfer point dedusting fan bearings.
- **Product Handling** — sponge iron cooler conveyor dust fan bearings; briquetting plant exhaust fan bearings.
- **Captive Power (WHRS)** — WHRS boiler ID fan bearings; FD fan bearings; PA fan bearings.
- **EAF / Induction Furnace (where integrated)** — melt shop secondary dedusting fan bearings; canopy hood fan bearings.
- **Cooling Tower** — induced-draft fan gearbox bearings; fan hub bearings.
- **Ancillary** — ventilation fan bearings; workshop exhaust fan bearings; control room ventilation blowers.

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

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