

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 Alumina Refineries & Aluminium Smelters

Non-ferrous plants run hot fans under compounded stress — fluoride-rich smelter GTC atmosphere, calciner ID fans in alumina refining, digester off-gas fans, anode baking furnace flue gas fans, and cast house fume extraction fans. Bearings face 150–220°C duty plus fluoride, caustic, or acid mist depending on unit. SYNTHOX HT's thermal + chemical combination is suited to this multi-stress duty where conventional greases fail on either axis alone.

Part A — Annual Cost of Fan Bearing Failures (1 MMTPA Refinery + Smelter)

- **Fan bearing life:** ordinary high-temp grease delivers 1–2 years on GTC and calciner fans against 4–5 year design life.
- **Bearing + overhaul spares:** ₹35–60 lakh/year per complex. Fluoride corrosion on shafts and seals compounds bearing cost.
- **Re-greasing + cleaning labour:** ₹12–20 lakh/year. Fluoride salt deposits and caustic crust compound manual cleaning.
- **Production loss:** ₹2–5 cr/year — the dominant cost. GTC fan failure triggers environmental excursion; calciner ID fan failure halts alumina production.
- **Total:** ₹2.8–6.8 cr/year per complex. A non-melting synthetic moly grease delivers 2–3× bearing life and addresses ₹1–2.5 cr/year.

Part B — Fan & Blower Applications

- **Smelter — Gas Treatment Centre (GTC)** — GTC booster fan bearings; absorber recirculation fan bearings; reactor outlet fan bearings.
- **Smelter — Pot Line** — pot line suction fan bearings; pot room ventilation fan bearings; bath duct exhaust fan bearings.
- **Smelter — Anode Plant** — anode baking furnace flue gas fan bearings; green anode press exhaust fan bearings; paste plant dust fan bearings.
- **Smelter — Cast House** — cast house fume extraction fan bearings; holding furnace exhaust fan bearings; DC caster cooling fan bearings.
- **Alumina Refinery — Digestion** — digester off-gas fan bearings; flash cooling vent fan bearings.
- **Alumina Refinery — Calcination** — calciner ID fan bearings; FD fan bearings; ESP booster fan bearings; cooler exhaust fan bearings.
- **Alumina Refinery — Red Mud** — red mud disposal area vent fan bearings; filtration exhaust fan bearings.
- **Captive Power Plant** — boiler FD, ID, and PA fan bearings; mill seal air fan bearings; FGD booster fan bearings.
- **Cooling Tower** — induced-draft fan gearbox bearings; fan hub bearings.
- **Bauxite & Coke Handling** — bauxite grinding dust collector fan bearings; calcined coke bag filter fan bearings.

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

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