KILN MAINTENANCE CATALOG
Rotary Kiln & Dryer Lubricants

Easy Bar® is an OEM Lubricant for kiln manufacturers Andritz and Metso
EASY BAR® - Solid lubricant bar designed fully lubricate, coat and protect the wear pads. Properly lubrication will help maintain creep, protect refractory brick, eliminate weld fracture and galling.

EASY BAR® SP (SPRAY) – NLGI (0) Grease designed fully lubricate, coat and protect the wear pads. Properly lubrication will help maintain creep, protect refractory brick, and eliminate weld fractures and galling.

**Inside Tire Bore / Wear Pad**

**Explore our full range of lubricant solutions for your equipment needs.**

**Trunnion Bearings**

*SHAFTCOAT* - High Viscosity Synthetic lubricant designed to coat dry trunnion’s shaft with a protective lubricant film to avoid metal-to-metal grinding of shaft and brass bushings during start-ups.

*B.O.S.S.* – “HOT” Bearing Emergency Oil Additive. During the critical moments when temperatures are rising, the trunnion bearing fluid’s will continue to lose protective characteristics which could result in damage to the brass bushing / bearing. B.O.S.S Additive will boost the viscosity of the current service oil and allow you to resolve the issue and avoid costly damage to your equipment.

**Trunnion Rollers**

*Graphite Blocks* - High quality graphite block designed to lubricate Trunnion Rollers, Riding Rings, Tires and Insert Seals where dry lubricant is needed.
EASY BAR® is a solid lubricant bar that melts when placed on the hot surface of a kiln shell. EASY BAR®’s patented blend of mineral and metal lubricants are suspended in a solid polymer binder that melts at approximately 120°F or 49°C and has an auto-ignition point of +1000°F or 538°C (the highest of any bar lubricant ensuring worker safety and no flame-ups).

When placed between the tire bore and kiln shell, the binder begins to melt. The rolling action of the kiln distributes the Easy Bar® lubricants precisely to the areas needed while the binder completely evaporates. The lubricants form a protective coating for the wear components of the kiln, resulting in less wear and longer service life of your wear pads and stop blocks.

### Immediate Cost Savings / Lower Lubrication Costs

- **Increase Wear Pad Life.** Minimizes the friction and wear of the wear pads at the mating surfaces. Easy Bar’s protective layer of graphite and lubricants forms a solid film on the surface assuring protection from cold welding and galling.
- **Minimizes Weld Fracture!** By coating and filing-in surface imperfection with a solid film of lubricant, Easy Bar® creates a smooth bore surface.
- **Slows Shell Ovality and Lengthens Refractory Life!** Easy Bar® maintains creep by reducing friction and wear between contact surfaces. This minimizes possible ovality thus lengthening refractory life.

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>BAR DIMENSIONS</th>
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<tbody>
<tr>
<td>25-A/50</td>
<td>CASE OF 50 EASY BARS</td>
<td>12” x 5/8th” x 2.5”</td>
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<tr>
<td>25-H/50</td>
<td>CASE OF 50 EASY BARS</td>
<td>11.75” x 5/8th” x 1.0”</td>
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<tr>
<td>25-C/50</td>
<td>CASE OF 50 EASY BARS</td>
<td>12” x 3/8th” x 2.5”</td>
</tr>
<tr>
<td>25-F/50</td>
<td>CASE OF 50 EASY BARS</td>
<td>10” x 5/8th” x 2.0”</td>
</tr>
<tr>
<td>25-G/100</td>
<td>CASE OF 100 EASY BARS</td>
<td>12” x 1/4th” x 2.5”</td>
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Easy Bar® is the only bar that features a Low Melt Temp w/ the Highest Auto-Ignition Point (+1000°F) in the Market.

Easy Bar® is a OEM lubricant for Andritz and Metso Kilns
Easy Bar® is utilized by Kiln Manufacturers:
Polysius, Humbolt Wedag, FLSmidth.
The LUBRICATOR is a specially designed tool for the application of Easy Bar® products.

- 5 feet long with various angle adjustments to align oiler with ideal application point
- Light-weight and durable
- Provides a safety zone between the oiler and the hostile temperatures of the kiln.
- Securely holds Easy Bar® during insertion
- Minimal pressure required to Push Knob to slide the Easy Bar® into the filler bar gaps

View instructional video at www.easybarlube.com/Lubricator-GraphiteLubricantBarInsertionTool.html
EASY BAR® SP (Sprayable Grease) consists of a high auto-ignition point thickener with organic and solid metallic, film-forming components.

Lubricate the surface of the (1) wear pads, (2) the inside tire bore (3) the sides of the tire or stop blocks and (4) thrust rollers for maximum protection from excessive wear, scoring, cold welding or galling.

Easy Bar SP’s patented blend of mineral and metal lubricants is a semi-solid and has an auto-ignition point of +1000° F or 538° C to ensure worker safety and no flame-ups.

When applied with a portable or fixed applicator, the high content of lubricating solids fills the surface imperfections resulting in a smoother surface, lower friction and less wear. The improved lubrication between the wear pads and riding rings reduces weld fractures while extending shell and refractory service.

- **Increase Wear Pad Life by 50%**
  Minimizes the friction and wear of the wear pads at the mating surfaces. Easy Bar® SP’s protective layer of graphite and lubricants forms a solid film onto the surface assuring protection from cold welding and galling.

- **Minimizes Weld Fracture!**
  By coating and filing-in surface imperfection with a solid film of lubricant, Easy Bar®SP creates a smooth bore surface.

- **Shell Ovality and Lengthens Refractory Life!**
  Easy Bar®SP maintains creep while lowering retainer pressure of the tire ID and wear pads. Less pressure results in less wear of the wear pads thus slowing shell ovality and lengthening refractory life.

- **Requires NO mixing or diluting.**
- **100% Lubrication Composition**
- **NO “blow-back” / “flame-up” dangers.**
- **Evaporates Cleanly / Biodegradable**
- **1-2 Minute Application Time per Pier**

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>25-SP/TU-20</td>
<td>Easy Bar SP Tubes (Twenty 20oz Tubes)</td>
</tr>
<tr>
<td>25-SP/35</td>
<td>Easy Bar SP (35 lb Pail)</td>
</tr>
<tr>
<td>25-SP/120</td>
<td>Easy Bar SP Keg (120lb Keg)</td>
</tr>
<tr>
<td>25-SP/500</td>
<td>Easy Bar SP Drum (500lb Drum)</td>
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</tbody>
</table>
| 25-T       | Pneumatic Applicator Gun
             Plant Air of 90-100 PSI required
             Typical Wand Length 3 Feet
             [Click for 25-T Application Video](#) |
| R25-V/M18  | Battery-Powered Applicator Gun
             The M18™ Cordless 2-Speed Grease Gun delivers maximum pressure and unmatched versatility, offering an industry leading 10,000 PSI max operating pressure. [Click for Application Video](#) |
| 25-SP/Pump | Pneumatic Pump for 35-lb Pail
             Maintain distance and reduce application time. Plant Air of 90-100 PSI Required [Click for Application Video](#) |
Trunnion Rollers & Riding Ring

Graphite Blocks

Composed of synthetic, lubricant quality graphite specifically designed to lubricate Trunnion Rolls, Riding Rings, Tires and Inlet Seals on Rotary Kilns, Calciners and Dryers where a dry lubricant is needed.

Our Graphite Blocks are composed from unique carbon composition which is manufactured under the tightest internal controls. This makes for highly consistent graphite that performs even in the most hostile environments.

ADVANTAGES:
• Graphite Blocks simply ride against the rotating surface in a holder where the weight of the block deposits the graphite lubricant on the load-bearing surface.
• Graphite Block’s lubricant lowers pressure on bearing thrust mechanism, while reducing forces on bearing end caps or thrust collars.
• Graphite Blocks are custom cut to your specific requirements in order to maximize the benefits and performance.

Graphite Block is positioned in Holder firmly while depositing lubrication onto the Trunnion Rollers.
Trunnion Bearing – Cold Start-Up Protection

PROTECT YOUR TRUNNION BEARINGS AND SHAFTS DURING START-UPS

When trunnions are idled the service lubricant drains off the shaft and back into the oil sump, leaving the shaft dry and void of lubricant. This results in dry metal-to-metal startups which create friction and wear. **Lubrication is required to minimize friction and wear to the shaft and bushing, prior to the mechanical dipper transferring the service lube oil for lubrication.** Application before start-up will provide a thin layer of the protective lubricant film around the shaft to prevent welding, galling and surface deformation.

**SHAFTCOAT** is fully compatible with petroleum\(^1\) and synthetic\(^2\)-based fluids, like ExxonMobil SHC-680 & 1000, commonly used for lubrication of the trunnion bearings.

**Application Rate:** 1-2 Qts per bearing to coat and protect shaft and bearings during “cold starts”.

**Each Case:** Eight (8) 1-Qt Bottles

**Advantages:**

(1) Easy to apply with our light weight bottles.
(2) Fully Compatible (commonly used STP additive actually deteriorates demulsibility in your service oil creating foam and ruining the oil)
(3) Eliminates possible contamination of service oil drums and/or cross-contamination of service oil.

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\(^1\) Petroleum Group I, II, III, base fluids
\(^2\) Synthetic Hydrocarbon Group IV, base fluids
**Trunnion Bearings – HOT BEARING EMERGENCY**

**BOSS Oil** is designed to be an immediate and temporary treatment for “hot bearings”. **BOSS Oil** is poured into the bearing fill port while the unit is in operation and mixes with the service oil.

- **BOSS Oil** will stabilize and minimize the increasing oil temperature and mitigate the destructive component wear.
- **BOSS Oil** will coat the shaft and bushing while mixing with the service oil.
- **BOSS Oil** will enhance the load carrying properties of the service oil to reduce friction and wear of bearing components.
- This product is compatible with both petroleum\(^1\) and synthetic-based\(^2\) lubricants and may be used indefinitely or as needed.
- Applies Quickly in Critical Moments: 1-Quarts bottles poured directly into bearing fill port

### Challenge
How to cool and get under control overheated bearing without shutting down.

### The Solution
Immediately add 1 quart in bearing portal directly on roller shaft. If after 5 minutes add another quart.

### Result
After 1 quart added bearing temperature is lowered allowing plant to gain control again. Shutdown was avoided.

<table>
<thead>
<tr>
<th>Catastrophic</th>
<th>Cost of Liquidated Damages: 5 x $35,000.00 = $175,000.00</th>
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<tbody>
<tr>
<td></td>
<td>Cost of Bearing Materials: 2 x $ 5,000.00</td>
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<tr>
<td></td>
<td>Services to Install: 1 x $90,000.00</td>
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<tr>
<td></td>
<td>TOTAL REPAIR COST = $ 275,000.00</td>
</tr>
</tbody>
</table>

\(^1\) Petroleum Group I, II, III, base fluids

\(^2\) Synthetic Hydrocarbon Group IV, base fluids