

# THERMAL BLANKETS: A LAST LINE OF DEFENCE

Thermal blankets help reduce the surface temperature of engine and exhaust components below the ignition temperature of diesel, oils, coolant and fluids that could leak from a busted hose.

Some argue that blankets are PPE rather than an Engineering Control in the hierarchy of risk control, but whatever the case, it is worthwhile having a formidable "last line of defence".

And to have this last line of defence give you peace of mind, it is worth paying the small price to have a complete blankets kit or more than the bare minimum to ensure exhaust systems are fully protected. The cost of this peace of mind is peanuts compared to the hourly rate/value of what an asset can contribute to site productivity.

## **OUR RECOMMENDATION: AN UNCOMPROMISED BLANKET SETUP**

Here's a recap of the previous Thermal Blankets Essentials newsletters. Together, they will help you form a comprehensive blanket strategy.

#### FIRE MITIGATION STRATEGY

- Blankets provide shielding to protect against engine-related fires
- Fire mitigation is essential for worker safety and asset protection
- Consistent maintenance and correct installation are vital
- Follow a documented set of inspection and maintenance practices

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### THERMAL BLANKETS PURPOSE

- Blankets provide a physical barrier between heat-critical engine components and flammable liquids
- Function-specific layers create a product that is impermeable, flexible and durable
- Maintenance crews can access engine bays sooner during cooldown periods with blankets installed
- Tailor-made blankets should provide a snug-fit, overlapping sections should minimise seepage to prevent ignition points

### A HEAT-CRITICAL BLANKETS STRATEGY

- Sites should establish a mandatory blanket specification for assets
- Define heat-critical blankets for each type of asset (trucks, dozers, etc)
- Manifold and turbo blankets
  strongly recommended
- Consider engine pipe blankets for high-risk areas (close to fuel flashpoint, high voltage lines, etc), junctions (T-sections) due to turbo proximity
- Blankets to solve radiant heat issues (e.g. mufflers)

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# **CONSIDERATION: PREVENTION IS BETTER THAN THE CURE**

An ounce of prevention is better than a pound of cure, as the old saying goes. The same is true both for fire mitigation and for thermal blankets.

Some sites may look for cost-cutting measures, and sometimes upholding this standard results in relaxed blanket specs. For example, blankets may be specified for turbos and manifolds but deemed as not important for engine pipes and mufflers. Similarly, thermal blankets may be viewed as 'good condition' when a maintenance crew should replace them. This condition misconception may be a misguided lead indicator in reducing fire incidents, and a site may not feel the impact of such decisions immediately.

Taking shortcuts or overlooking certain things, like PPE for workers onsite, is becoming more and more unacceptable.



## SUMMARY: A HOLISTIC BLANKETS STRATEGY WILL BENEFIT YOUR MINING OPERATION

I think it's fair to recap the adage "ounce of prevention is better than a pound of a cure". What's at stake with an ineffective blankets strategy? The answer is that lives are at stake, extremely valuable assets are on the line, and disruptions to production. As for your "last line of defence," I think it's a fair suggestion not to skimp or scrape.







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