

FRICITION MANAGEMENT SYSTEMS FOR ROLLING CONTACT

Friction management is much more than lubrication. Not only are the materials more diverse, the systems to apply them are critical to the performance. The reward is trouble-free and cost-effective performance of critical engineering equipment that may have given challenges in the past under a more conventional regime. The focus is on rolling contact situations but not in the sealed comfort of bearings and gearboxes; these materials excel in the rugged and often contaminated environments of industrial and railway operations.

WHAT ARE SOLID FRICTION MODIFIERS?

Some are lubricants but others deliver a more sophisticated friction characteristic that sustains the traction and braking demands that often accompany the rolling. The materials from BVY are not oil based and do not contain graphite; they do contain molybdenum disulphide (MoS_2) as one of the key, solid material ingredients. The technology has developed to deliver the active friction modifiers in a stick form that can be moulded into a wide range of convenient shapes. For some applications, the solid lubricant material can be suspended in a water based carrier to facilitate its delivery, more popular is the stick formulation which is rubbed onto the rolling surface in a spring loaded applicator.

The MoS_2 formulations from BVY are unique in the solid lubrication field and deliver superior performance which is scientifically documented from testing worldwide. The stick only deposits to generate a sub-micron film onto the surface, it then stops the deposition until the demand for lubrication depletes the film thickness; the stick then resumes coating with lubricant. The virtue of the stick system is in its simplicity, requiring no power or control systems to function reliably, and in the self-regulation of the product. The sticks offer the following characteristics in comparison with conventional lubrication



APPLICATORS GANGED TOGETHER FOR WIDE SURFACES



EXAMPLES OF INTERLOCKING STICKS AND BLOCKS

- Low or controlled friction to match the requirement.
- Absolutely dry and dust/dirt-repellent.
- Do not drip or migrate from the applied zone.
- Maintenance free and long lasting.
- Continuous and uniform lubrication.
- Weather resistant
- High temperature resistance (300oC).
- Kind to the environment. No wastage or spillage of lubricant.
- Proven performance worldwide

PRODUCTS CAN BE EFFECTIVELY APPLIED TO:

- Cranes, including ship-to-shore, luffing, gantry, EOT, AS/RS.
- Trunnions, tyres and thrust buttons on all rotating kilns, driers, mixers etc.
- Shunting locomotive and wagon wheels.
- Materials handling and rail equipped conveying systems.
- Translational guide systems for machines.
- Chain drives.
- Various other metal surfaces.

OPERATIONAL BENEFITS INCLUDE THE FOLLOWING:

- Up to 80% reduction in wear and reduction in contact defects including cracking (rolling contact fatigue).
- Does not attract or accumulate dirt or dust/particles/grit
- Totally clean environmentally. Reduces energy consumption.
- Cost-effective operations and cost-effective to install.
- No loss of traction under any circumstances (where relevant).
- Smoother, lower noise operations.



TYPICAL APPLICATOR FOR RECTANGULAR STICK